# LIFE AND LABOUR

IN A

# SOUTH GUJARAT VILLAGE

BY

G. C. MUKHTYAR, M.A.

EDITED BY

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STUDIES IN INDIAN ECONOMICS

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## STUDIES IN INDIAN ECONOMICS

A series of volumes dealing with the economic history and problems of Modern India

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C. N. VAKIL

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# EDITOR'S PREFACE

The importance of investigations into the life of people living in rural areas has been generally recognised. It was emphasised recently by the Royal Commission on Indian Agriculture which pointed out the duties of the Universities in this connection. Though systematic work of this character was first done in this Presidency by Dr. Mann, the Punjab is more advanced at present inasmuch as it has an organised body which carries out the work. So far as this Presidency is concerned, the investigations of Dr. Mann referred only to the Deccan. Other parts of the Presidency were neglected for some time; a detailed survey of a Konkan village was done in this School by Mr. V. G. Ranade during 1922-24, and published by the Provincial Co-operative Institute in 1926. Gujarat has been hitherto neglected and the present work is the first attempt to fill the gap.[1]

Any one interested in rural investigations of this character is bound to be faced with several difficulties, the chief of which will be with reference to the methods that he should adopt. Existing village studies do not give a full explanation of the methods followed in each case, the reader being left in most cases to infer the method for himself. In view of the growing importance of such studies and the variety of problems which each of them is likely to raise, a study of the method of investigation is essential. This would on the one hand facilitate the work of other investigators, and on the other hand enable comparisons to be made between different studies. The present work is a definite improvement in this connection, inasmuch as in addition to a general explanation of the method in the introduction, detailed explanations have been given throughout the text, wherever necessary, and in the appendices.

This was considered specially necessary because of another important departure which this study has made. The scope is usually restricted to a few selected topics in most of the existing

[1] See Appendix X.

works of a similar character; in the present volume, an attempt has been made to make the scope of the investigation as comprehensive as possible, by collecting data on almost all the aspects of social and economic life of the people of the village. It will be obvious that this effort made it necessary to work out the exact method to be followed in each case. Problems of scope and method which arose during the course of this investigation were fully discussed by the author with me at each stage. Full account was taken in these discussions of the methods that were followed by other investigators, so far as they could be ascertained, before determining the line of action. Though we do not claim finality about these methods, it is expected that the comprehensive scope of the present work, and the explanations of the method followed, will help in the scientific study of this important branch of Indian Economics to which increasing attention is being naturally paid.

Another difficulty in such investigations is the selection of the village from the point of view of its representative character. A village typical of all important conditions existing in a particular large area is an ideal impossible to achieve, but it is desirable that the selected village should be as far as possible representative of conditions in the larger area of which it forms a part. With this view, a preliminary tour covering about 20 villages in South Gujarat was made by Mr. Mukhtyar. With the impressions thus gathered and with the co-operation of Diwan Bahadur A. U. Malji, Chairman, Gujarat Branch, Bombay Provincial Co-operative Institute and his co-workers, it was decided to select the village of Atgam in Bulsar Taluka of the Surat district as one fairly representative of conditions in South Gujarat. The actual investigations involved a stay of about 200 days in the village on the part of Mr. Mukhtyar. This was not a continuous stay, but comprised several visits during different seasons. The work was begun by the end of 1926, and was finished by the beginning of 1928, so that the facts related may be taken to be true of the year 1927. Mr. Mukhtyar was fortunate in getting the sympathy and help of several men, official and non-official in this survey. Among these, special mention must be made of Mr. Manibhai H. Desai to

whose good work the people of Atgam owe a great deal. It may be added that this investigation was done by Mr. Mukhtyar as a research scholar in this School, and was submitted for the M. A. degree of this University in 1928. The degree was awarded to him with distinction.

In order that interest may be created in such work in other parts of Gujarat, and in order that some comparison may be possible regarding the conditions of this village with Gujarat as a whole, it has been thought desirable to give a brief survey of rural conditions in Gujarat at the outset. Chapter I, which deals with this, has been written by me based mainly on material collected by Mr. Mukhtyar, supplemented by personal observation.

*C. N. Vakil.*

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University of Bombay,
1st December, 1929.

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# INTRODUCTION

India is a land of villages. About nine-tenths of her population live in rural areas. About seven-tenths live on agriculture. Thus the bulk of the population of our country pursues agriculture either as a principal or subsidiary source of income. Obviously the prosperity of our rural areas is intimately woven with the prosperity of agriculture. In view of this, the importance of a study of agricultural conditions and their effects on rural population cannot be over-emphasized.

Only a few attempts [1] have been made so far to study the problem of Indian agriculture as a whole. These studies could not evidently be comprehensive or complete in themselves. Consequently two methods have been devised for attacking the problem: (1) by making surveys of typical villages like Dr. Mann's Land and Labour in a Deccan Village[2] and (2) by surveying large homogeneous tracts. Among the latter there are two subdivisions—study of a particular problem of the region like Darling's 'Punjab Peasant in Prosperity and Debt', and a general study of all problems of an area like Calvert's 'Wealth and Welfare of the Punjab'.

Let us note the relation between these two classes of surveys. The former are based on first hand investigations; the latter on statistics collected by Government and private agencies. The former have a special value in so far as they supply us with a realistic picture of a small unit in all its details and completeness; the latter have a general value as they indicate the broad tendencies operating in a tract. For a thorough study of the problem of Indian agriculture both classes of surveys are necessary. The results of both should be co-ordinated. But we must mention that the greater the number of village surveys, the greater is the probability of arriving at the truth.

So far as the agricultural problem of our Presidency is concerned, both classes of studies have been made. Dr. Mann has surveyed two villages in the Deccan. Mr. Ranade has followed

1 *e.g.* (1) Improvement of Indian Agriculture, by Dr. Voelcker.
(2) The Agricultural Problems of India, by Sir Gangaram.
(3) Agriculture in India, by James Mackenna.
(4) Report of the Royal Commission on Indian Agriculture.

2 The following are other instances of the first method: (1) Dr. Mann's Study No. II; (2) A Social and Economic Survey of a Konkan Village, Ranade; (3) Some South Indian Vilages, Dr. Slater; (4) Economic Life in a Malabar Village, Aiyyar; (5) The Economic Life of a Punjab Village, Dr. Lucas; (6) Report on an Economic Survey of Bairampur, Bhalla.

suit in his study of a Konkan village. Mr. Keatinge follows the second method in his 'Rural Economy in the Bombay Deccan' and 'Agricultural Progress in Western India'.

Thus though the Deccan and the Konkan have received some attention at the hands of the economic investigator, Gujarat has been sadly neglected. With the solitary exception of the Pardi Taluka Economic Enquiry Committee's[1] Report there is no scientific work on the economic conditions of Gujarat. This neglect should be made up both by a general survey as well as by intensive surveys of selected villages. The present is an intensive survey of Atgam, a village in the Bulsar Taluka, Surat District.

In view of the increasing importance of such studies, to which we have already referred above, it is absolutely necessary to undertake a thorough discussion of the scope and method of such surveys. Though Major Jack was the first man who carried out an intensive survey of a district in Bengal, Dr. Mann was the first to chalk out a systematic and scientific plan and devise a method for making village studies. Ever since the publication of his first study, several others have been made. For the purpose of discussing the scope and method followed in such surveys we shall consider only the following important studies referring to conditions in different parts of our country:

| | |
|---|---|
| (1) Land and Labour in a Deccan Village, Dr. Mann, Study No. I.<br>(2) Land and Labour in a Deccan Village, Dr. Mann, Study No. II.<br>(3) A Social and Economic Survey of a Konkan Village, Ranade. | Bombay Presidency |
| (4) Some South Indian Villages, Dr. Slater.<br>(5) Economic Life in a Malabar Village, Aiyyar. | Madras Presidency |
| (6) The Economic Life of a Bengal District,[2] Dr. Jack. | Bengal Presidency |
| (7) The Economic Life of a Punjab Village, Dr. Lucas.<br>(8) Report on an Economic Survey of Bairampur, Bhalla. | The Punjab |

For the sake of clarity and precision in discussion, we shall take Dr. Mann's Study No. I as the standard, and examine the scope and method of other village studies in the light of that standard.

1 This Committee consisted of (1) Rao Saheb Dadubhai P. Desai, (2) Rao Bahadur B. R. Naik, and (3) Professor C. N. Vakil. The report was published in 1926 by the Gujarat Branch of the Bombay Provincial Co-operative Institute.

2 In the absence of a detailed village study relating to Bengal we have taken this work for the purpose of discussion.

The scope of Dr. Mann's study No. I may be analysed as follows:

Part I: The general features of the economic life of the village including:

(i) the physical character of the village,
(ii) the land, its divisions and holdings,
(iii) vegetation, crops and cultivation of the village, and
(iv) the agricultural stock of the village.

Part II: The statistical part of the enquiry showing the actual economic condition of the people as measured by

(i) income, (ii) expenditure, (iii) indebtedness — for the village as a whole and as divided into certain economic groups.
(iv) the capital value of the village and the proportion certain village charges bear to it.

Keeping this scope in mind, we shall now review the contents of other studies mentioned above.

(2) Dr. Mann's Study No. II: In this work there is one more topic, namely, the effects of a rise in prices on rural prosperity.

(3) Mr. Ranade's work[1] on "A Social and Economic Survey of a Konkan Village" includes, over and above the standard scope, a study of some social aspects of village life like religion, education, litigation and daily routine of work.

(4) Dr. Slater has compiled and edited a number of village surveys made by his students in accordance with the questionnaire he drew up. The questionnaire as well as the studies include a few additional topics like subsidiary industries, village trade, sanitation, education and village administration. Greater details are aimed at in the study of the other problems than those which come within the scope of the standard survey. All these Madras surveys are, however, defective since they do not include a statistical study of the economic conditions of the village as a whole and in groups. They contain only a few typical budgets.

(5) Mr. Aiyyar has more or less followed the standard. In his general treatment of the subject, however, he notes a few more peculiarities of land tenures and indebtedness of the people. Moreover, he has added two new chapters: one on "Workmen and Wages", which includes a study of typical weekly as well as annual budgets of artisans, depressed classes and others; and the other on "Wealth and Welfare" which contains a discussion of a number of aspects of rural life like the standard of living, housing conditions, physical and mental health of the people, religious festivals, education, unemployment, inequality of wealth, pancha-

1 This study was made under the guidance of Professor C. N. Vakil and has been published by the Provincial Co-operative Institute, Bombay.

yats and others—all referring to Malabar, in which the village he studied is situated. So far as the village study itself is concerned, though the author has statistically examined the economic condition of the village as a whole, he has not analysed the figures further with a view to give us an exact idea as to what proportion of the people live in poverty. Nor has he touched the conception of the capital value of the village.

(6) Major Jack's is a purely statistical study of a district (Faridpur), with necessary explanations to put flesh upon the dry bones of statistics.

(7) In his study of Kabirpur Dr. Lucas added to the standard scope the following topics: marriage and other social customs, education, sanitation, administration and a few remarks on the marketing organization of the village. He has moreover given an interesting annual time-table of the work of a farmer. Greater details are given regarding the people, their occupations, indebtedness, rents and wages. This study, like Dr. Slater's, includes only three typical budgets—one of a Sheikh agriculturist, another of a weaver and the third of a chamar.

(8) The contents of Mr. Bhalla's work are mostly similar to those included in the above study. The only additions are details on a few topics like land revenue, sales and mortgages, and in the discussion of new topics like the actual cost of sinking a well, and a concrete instance to illustrate the process of subdivision and fragmentation of land. This study, like Dr. Lucas,' is also incomplete as it does not contain a statistical presentation of the economic condition of the people.

Having thus considered the scope, we may briefly discuss the method. The method in such intensive village surveys means the method of collecting data with regard to the size of population, its equipment, its income, expenditure and indebtedness. It involves in practice either a schedule or a questionnaire. A questionnaire alone is generally used in those studies in which no attempt has been made to calculate the income and expenditure of the village as a whole. For instance, in Study No. (4) an elaborate questionnaire has been given. In Studies (7) and (8) a questionnaire was evidently in mind while making the survey, though none has been given in the works themselves as published.[1] In study No. (6) 'an abstract of the rules and instructions in accordance with which the economic information was gathered'

1 It may be noted that the elaborate questionnaire issued by the Punjab Economic Enquiry Board has obviously been based on these studies. This Board published "An Economic Survey of Gaggar Bhana" (Amritsar District) by S. Gian Singh under the supervision of C. M. King, I.C.S., in 1928. The questionnaire referred to above has been included in this work.

has been given at the end of the book, but this is not sufficiently explanatory in the absence of a copy of the original schedule. Dr. Mann, Mr. Ranade and Mr. Aiyyar have, as can be easily inferred from their studies, used a schedule and a questionnaire. Unfortunately, neither in Dr. Mann's studies nor in that of Mr. Ranade is the schedule or the questionnaire published. Mr. Aiyyar, however, gives at the end of his work five statistical forms for collecting data and has followed Dr. Slater's questionnaire.

In the light of the above analysis of the scope and the method of the studies so far made, we shall now mention the special features of the study that we have made. So far as the scope is concerned, we have followed the standard study and, in addition, have dealt with almost all the topics that have received attention by other investigators, and have added a few more. The following are some of the special features of this study:

(1) a detailed examination of agricultural methods,
(2) the description of 'purely personal possessions' like furniture, ornaments, cash and others—of the village,
(3) a thorough study of the labour problem of the village,
(4) a comprehensive discussion of the marketing organization of the village,
(5) a discussion of the general economic conditions of the people by the application of tests, usually applied by Economists and Settlement Officers, for gauging the prosperity or otherwise of rural areas,
(6) an attempt to consider the relation between the total Government dues paid by the village and the benefit received by it in return,
(7) greater details about the relation between the people and the state,
(8) greater details about indebtedness and credit organization of the village and
(9) a programme for the reconstruction of the village.

We have also added a number of appendices, some giving original data collected on the spot, and others explaining the method followed in making certain calculations. So far as the method of collecting the data is concerned, we have given the schedule used by us in an appendix.

A few words about the salient features of the method we have followed in this study, may not be deemed out of place here. We filled in certain columns in the schedule on the spot. The remaining columns were filled in after making calculations which have been explained in the text, foot-notes and appendices. We may however, mention the important features of the methods used in making some of these calculations.

As regards the net receipts from land to the different families, we have closely followed Dr. Mann's method with this difference: (i) his net income for the village is exclusive of land revenue, while ours is not; we have debited land revenue separately to each family, treating it as an item of annual expenditure with a view to trace the relation, if any, between the burden of land revenue and the economic condition of the family concerned; and (ii) while he has not deducted anything by way of repairing charges, we have done so in the final calculation of the real net income from land.

Regarding net income from animals and labour (skilled, unskilled or external), we have given in the case of the former, balance-sheets relating to different animals, and a table of the figures of the net income from each, used by us in calculating the net receipts derived by different families from animals they own; and in the case of the latter, we have given a full explanation of the method of calculating net income from labour in an appendix.

Finally, we must note that whatever amount of care an investigator may take, the accuracy of statistics collected in such studies depends upon the nature of the 'raw-material.' There may be slight inaccuracies in detail here and there, but we believe that the picture, as presented in this work as a whole, does not belie the reality it seeks to represent. Though this study could not be made as intensive as that of Rowntree or that of Booth, we have tried our best to make it as comprehensive and intensive as was possible under the circumstances, giving at the same time an explanation of the methods followed, as far as possible.

AGRICULTURAL ... COIMBATORE

## CHAPTER—I

# REGIONAL BACKGROUND

or

# A BRIEF SURVEY OF RURAL CONDITIONS

in

# BRITISH GUJARAT

### INTRODUCTION

The object of this chapter is to describe in brief rural conditions in British Gujarat, so that the study of the village of Atgam in the Bulsar Taluka of the Surat District, which is the subject matter of this work, may be understood in its true perspective. It may also serve as an eye opener to those interested in the subject to undertake intensive enquiries in other parts of Gujarat ; a collection of several typical enquiries relating to an area is an essential preliminary to any well-thought scheme of rural reconstruction.

### AREA

British Gujarat is the northern part of the Bombay Presidency and consists of five districts, namely, Ahmedabad, Kaira, Panch Mahals, Broach and Surat. It is interspersed with parts of the territories of the Baroda and other minor states. The total area of British Gujarat is 10,145 square miles of which the Ahmedabad district covers 3,820 square miles, the remaining districts being more or less equal in area varying from about 1500 to 1600 square miles.

### POPULATION

According to the census of 1921, rural Gujarat consists of 3277 villages with a total population of 21,93,183

persons. The districts of Panch Mahals and Kaira have a larger rural population than those of Broach and Surat; the rural population of Ahmedabad is the least being about 59 per cent. It appears that the rural population is on the increase as can be seen from the fact that the average size of a village in British Gujarat, which was 604 persons in 1901, rose to 669 in 1921. This, however, does not give the true picture of the density of population in the different districts. We find that whereas the average village population in Kaira is 1027; that in Panch Mahals is 482; the corresponding figures for Surat, Ahmedabad and Broach are 663, 612 and 594 respectively. If we look at the figures of population classified according to occupation, we find that the numbers living on agriculture are increasing. The percentage of the agricultural population which was about 59 in 1901 rose to 62.6 in 1921 as can be seen from the following table.

| | 1901 | | 1921 | |
|---|---|---|---|---|
| | '000 | Percentage | '000 | Percentage |
| Agricultural Population . | 1593 | 58·9 | 1583 | 62·6 |
| Other Population . . . | 1109 | 41·1 | 1105 | 37·4 |
| Total Population . . . | 2702 | — | 2958 | — |

It is perhaps true to say that the sub-division of population according to caste is perhaps most minute in British Gujarat as compared with other parts of the country, but from the point of view of the agricultural industry we shall refer to the main divisions which are known as Ujaliparaj and Kaliparaj. The word Kaliparaj means black races and includes, generally speaking, the working classes known by different names such as Chodhra, Dhanka, Dhodia, Kunkna, Bhil, Naika, Dubla and others. All other Hindus, other than these are called Ujaliparaj. In addition to the Hindus, there are of course Mahommedans, Parsis and Christians in varying numbers in the different districts, and though in some areas we do find that the Mahommedan population is doing useful agricultural work, we shall confine our attention to the main

sub-divisions of the Hindu population, which from the point of view of the agricultural industry is the most important. Among the Ujaliparaj the two most industrious communities are those of Kunbis or Patidars and Anavils. There is a wide gulf between the Ujaliparaj and the Kaliparaj in their standard of living, customs and social traditions, as well as in their methods of agricultural work. The Kaliparaj, who number more than one-third of the population of Gujarat are generally in a backward condition and in most cases addicted to drink. One of the important problems of rural reconstruction in Gujarat is to improve the condition of these people. It may be noted that efforts are being made in this direction by voluntary associations like the Bhil Seva Mandal of Dohad and the Rani Paraj Seva Samiti of South Gujarat. So far as the Ujaliparaj are concerned, the two most important agricultural communities, namely, the Patidars and Anavils are either decreasing in population or remaining stationary as can be seen from the following figures.

| Year | Patidars in British Gujarat | Anavils (Surat District) |
|---|---|---|
| 1881 | 3,22,488 | 24,519 |
| 1911 | 2,59,992 | 23,721 |
| 1921 | 2,33,277 | 23,895 |

One of the principal causes of this state of affairs is the social custom among both these communities by which, generally speaking, a girl is not given in marriage except to a bridegroom belonging to a family of high status which is determined more by tradition than by the actual position of the party at the time. From the point of view of the agricultural industry, this is indeed an unfortunate situation.

## EDUCATION

In matters of education, though there is a steady progress, the actual figures do not reveal a satisfactory position. At the last census about 13 per cent. of the peo-

ple were recorded as literate; the literacy among males was about 22 per cent., among females it was less than 4 per cent. The following figures show the position of the different districts regarding literacy in 1921. It is obvious that for any reform the first step will have to be in the direction of spreading elementary education to a much greater extent than now.

| DISTRICT | PERCENTAGE OF LITERACY Males | Females |
|---|---|---|
| Ahmedabad | 22·71 | 5·15 |
| Kaira | 19·62 | 3·13 |
| Panch Mahals | 11·37 | 1·60 |
| Broach | 27·97 | 3·41 |
| Surat | 28·31 | 5·65 |
| British Gujarat | 21.99 | 3.79 |

## RAINFALL AND IRRIGATION

Both in volume and distribution, rainfall in Gujarat varies from district to district, and even from village to village. On the whole, it may be said that it is heavy in the south and the east, and comparatively less in the north and the west. The rainy season commences in the first half of June and is over by the beginning of October. The prospects of the Kharif (monsoon) and Rabi (winter) crops depend on the adequacy and distribution of the rainfall. An analysis of the statistics of rainfall in British Gujarat reveals the fact that it has become more deficient and irregular since 1900. The following figures will bear out this remark.

| Years | Average annual rainfall in British Gujarat in inches |
|---|---|
| 1850-1900 | 37·4 |
| 1894-1900 | 35·4 |
| 1901-1910 | 30·7 |
| 1911-1920 | 33·8 |
| 1921-1926 | 29·6 |

In the absence of adequate rainfall, Gujarat is not well-provided by a system of irrigation canals. We have some tanks and wells, but their condition is not satisfactory. During the quinquennium 1922-23 to 1926-27, the average annual area irrigated from all sources amounted to about 103,000 acres, or only 2.3 per cent. of the gross cropped area in 1926-27. Gujarat is traversed by several rivers, which can be utilised for irrigation. The Indian Irrigation Commission of 1901-03 recommended the construction of large canals connected with the Sabarmati, the Mahi, the Narbudda and the Tapti—the four principal rivers of Gujarat. Schemes were submitted to the Bombay Government in 1919 and in 1921 for the Sabarmati Canal project, but they were rejected on the ground of financial stringency. A well-thought scheme of irrigation for Gujarat is an urgent necessity in the interests of the farmer.[1]

## CROPS

The most important food crops grown in British Gujarat are jowar, bajri, paddy and wheat. Cotton and oilseeds are the important non-food crops. On a detailed analysis of the figures, we notice that there is a tendency to increase the area of non-food crops. The total cropped area in 1895-96 amounted to 3403 thousand acres; in 1926-27 the figure rose to 4421 thousand acres. The area under food crops, which was 2575 thousand acres in the former year remained more or less stationary, being 2581 thousand acres in the latter year. The area under non-food crops accounted for the total increase having risen from 838 thousand acres to 1840 thousand acres in the period mentioned above. Among the non-food crops, cotton is popular in all the districts; Broach having 46 per cent. of its cropped area under cotton, Ahmedabad 25 per cent., Surat 20, Kaira 11 and Panch Mahals 6. Another crop of importance which is grown in recent years is groundnut which has become popular in Northern Gu-

1 Cf. the written memoranda and evidence of witnesses from Gujarat before the Royal Commission on Indian Agriculture; Vol. II, Part 2.

jarat ; the area under this crop was about 400 acres before the War, in 1924-25 it rose to 40,000 acres, in recent years it has exceeded 75,000 acres.[1] The tendency that we have noticed above towards increasing attention to non-food crops is true of all districts as can be seen from the following table.

| District | FIGURES IN PERCENTAGES | | | |
|---|---|---|---|---|
| | 1895–96 | | 1926–27 | |
| | Food crops | Non-food crops | Food crops | Non-food crops |
| Ahmedabad . . . | 72 | 28 | 64 | 36 |
| Kaira . . . . . | 92 | 8 | 68 | 32 |
| Panch Mahals . . | 91 | 9 | 70 | 30 |
| Broach . . . . | 49 | 51 | 43 | 57 |
| Surat . . . . . | 77 | 23 | 38 | 62 |
| British Gujarat . . | 75 | 25 | 58 | 42 |

Though Gujarat is considered one of the most fertile regions in India, it is generally believed that the yield of crops is very low. This opinion was voiced before the Royal Commission on Indian Agriculture, and one hears of the complaint generally in rural areas.[2] In the absence of detailed farm accounts, it is not possible to have a statistical proof of this tendency. The following figures show that the yield per acre of food grains, which in itself is low, has not increased during the last 30 or 40 years, but has slightly decreased.

| Years | Annual average yield of food grains in maunds of 40 seers | Annual average acreage under food grains | Yield per acre in maunds |
|---|---|---|---|
| 1891-1900 | 43,553 | 2,457 | 17·7 |
| 1901-1910 | 42,572 | 2,233 | 19·1 |
| 1911-1920 | 35,148 | 2,051 | 17·1 |
| 1921-1926 | 22,471 | 1,328 | 16·9 |

1 Annual Report of the Department of Agriculture, Bombay Presidency, 1926-27.

2 Royal Commission on Indian Agriculture, Evidence Vol. II, part 2, pages 206 and 313.

We thus find that on the one hand the pressure on the land is increasing whereas on the other, the yield of crops does not show proportionate increase. The problem in British Gujarat therefore, is to find the best means to increase agricultural production. There are only two ways of doing this, first, by extending the area under cultivation, second, by taking suitable steps to increase the yield of different crops.

## EXTENSIVE CULTIVATION

The total area of British Gujarat is classified as under[1]

| | Acres | Percentage |
|---|---|---|
| Forests | 269,000 | 4 |
| Not available for cultivation | 1,002,000 | 15 |
| Cultivable waste other than fallow | 448,000 | 7 |
| Current fallow | 563,000 | 9 |
| Net area sown | 4,246,000 | 65 |
| *Total* | 6,528,000 | 100 |

We thus find that 448 thousand acres are still available for cultivation and that the area kept as current fallow is very large. The fact that such large areas are not cultivated in spite of a larger population shows that the available lands are of inferior quality which people are not willing to take up because of the increased cost of production which is likely to be involved. In other words, the scope for extensive cultivation is limited.

## INTENSIVE CULTIVATION

So far as the question of intensive cultivation is concerned, we must refer to the principal causes which have brought about the present low yield before we can think of the remedies to be applied.

1 Season and Crop Report of the Bombay Presidency, 1926-27.

(1) *Sub-division and Fragmentation of Holdings.*

As in other parts of the country, this tendency is one of the principal causes of the present deplorable condition of agriculture in British Gujarat. The size of an average holding as estimated in 1921 was 12.2 acres in Ahmedabad, 4.9 in Kaira, 8.3 in Panch Mahals, 12.6 in Broach and 6.3 in Surat. It must however be remembered that these holdings are not made up of one compact plot, but each of them consists of several small plots situated at varying distances from one another. Though it is true that in the case of certain kinds of rich soil, even a holding of about 5 acres would be sufficient for an agricultural family, it has been estimated that for a dry crop soil, the size of an economic holding should be 20 acres. On the whole it appears that the majority of holdings in British Gujarat are uneconomic. The people themselves are conscious of this situation, and in some cases, they are trying to make up for the defect by enlarging the unit of cultivation. This is done by leasing neighbouring plots from one's neighbours so that though the unit of ownership may be small, the unit of cultivation may be larger. This has, however, not gone far.

So far as this evil is concerned, it must be pointed out that the tendency is on the increase. We find that there has been a progressive diminution in the size of an average holding in British Gujarat as can be seen from the following figures.

| Year | Size of an average holding in acres |
|---|---|
| 1886-87 | 9·5 |
| 1900-01 | 9·2 |
| 1916-17 | 8·1 |
| 1921-22 | 7·7 |
| 1926-27 | 7·6 |

(2) *Scarcity of Labour.*

The cultivating labourers may be divided into two classes, (1) permanent and (2) temporary. The former

may be further sub-divided into (a) those who are engaged annually and are called Sathis in the Ahmedabad District and (b) those who are attached to their masters in many cases for life and work in return for the debt that they owe to them. These are known as Halis in South Gujarat. One frequently hears of complaints about the scarcity of these labourers.[1] Among the causes of this scarcity may be mentioned the fact that the number of labourers has decreased from 523 thousand in 1901 to 519 thousand in 1921. The decrease of 4 thousand is comparatively great because during the interval, the demand for them has increased.[2] The second cause is the tendency on the part of the labourers to take up land for themselves and become cultivating owners.[3] The third cause of some importance is the seasonal migration to urban areas for seasonal work which is paid at a higher rate.

The scarcity of labour referred to above is felt all the more because the demand for it has increased not only by an extension of cultivation, but also by other causes, namely, (1) partial withdrawal of certain high-caste cultivators such as Patidars and Anavils from work in the fields, (2) extension of urban industries which absorb large numbers of workers, (3) the demand for domestic and other servants in towns and cities, (4) the gradual break up of the joint family system which results in a situation whereby the small family unit requires outside labour, which under the former system was not necessary. We also hear of complaints regarding the efficiency of the labourers, particularly the decrease in the hours of work per day.[4]

1 Report of the Royal Commission on Indian Agriculture, Evidence Vol. II, Part 1, p. 557 and Vol. II, Part 2, p. 340.

2 Report of an enquiry into the agricultural wages in the Bombay Presidency, 1924, issued by the Labour Office, Bombay.

3 Land Revenue Administration Report, Bombay Presidency, 1923-24.

4 Report on Agricultural Wages, ibid.

(3) *Inadequacy and Inefficiency of Cattle.*

From the following figures we find that the number of cattle varies from district to district, there being a surplus in some, a deficiency in others.

| District | Cropped area per pair of plough cattle in acres[1] |
|---|---|
| Ahmedabad . . . . . . | 24·8 |
| Kaira . . . . . . . . . | 16·2 |
| Panch Mahals . . . . . | 10·5 |
| Broach . . . . . . . . . | 22·8 |
| Surat . . . . . . . . . | 11·8 |

It is well known that on account of this deficiency the system of Sandhal or exchange of bullocks in seed and harvest seasons is prevalent. Besides the inadequacy of the number of cattle, they have generally grown inefficient. Among the causes of this tendency may be mentioned (1) a decrease in facilities for rearing cattle due to reduction in grazing areas consequent on extension of cultivation, (2) frequent occurrence of fodder famines particularly after 1900, the effects of which on the cattle are known to be disastrous and (3) the increase in crop area per pair of plough cattle.

Among the other causes of low yield, we may mention the use of primitive implements, the existence of crop disease, the damage caused by wild animals or by cattle let loose in fields by negligence and so on.

In view of these considerations it is but natural that we find complaints regarding the deterioration of the soil in British Gujarat.[2] It has been observed that the peasants of Gujarat do not adopt the wholesome practice of manuring the soil, of protecting crops and of carefully preparing the soil before sowing. This tendency may be ascribed to the following cases : (1) want of means to purchase manure or to keep sufficient cattle to get an ade-

1 Taken from the Statistical Atlas of the Bombay Presidency, 1925.

2 Bombay Land Revenue Assessment Committee, 1925, Evidence, Vol. page 117.

quate supply of manure or to prevent the use of cattle dung as fuel; (2) want of confidence in the business of agriculture which has been rendered precarious by uncertain rainfall and a fixed government demand which must be paid;[1] (3) the growing tendency towards absenteeism which results in a general neglect of cultivation.[2]

We thus see that there are great difficulties in the way of better cultivation, (1) that early steps should be taken to remove the evils of fragmentation of holdings by means of consolidation, (2) that the question of the inadequacy and inefficiency of labour and cattle must be solved and (3) that the processes of cultivation including the use of implements and manure should be improved.

## MARKETING ORGANISATION

The growth in non-food or commercial crops, and the proximity of cities like Bombay, which on the one hand provides a large market for certain crops for local consumption and on the other provides excellent facilities for the export of different kinds of goods, have introduced a new outlook in the life of the people which makes it necessary for them to think of efficient and economical arrangements for marketing their produce. From the point of view of the farmer, we find that marketing in Gujarat is highly uneconomical. (1) In the first place except for a few crops like cotton and oil-seeds there are no organised markets. We do not therefore have timely information regarding current rates for different kinds of crops in different districts, and this gives opportunities to the middlemen to buy out crops at rates unfavourable to the farmer. (2) In many cases purchases are made from the cultivators by money lenders who are the agents of some town dealer.' In those areas where transport facilities are good, the farmers cart their produce to the towns for disposal. In the absence of organised markets how-

1 Royal Commission on Indian Agriculture, Vol. II, Part 2, p. 317.
2 Royal Commission on Indian Agriculture, Vol. II, Part 2, p. 337.

ever, they have to wait sometimes for a long period with their loaded carts and are often compelled to sell at a comparatively low price. (3) On each transaction, brokerage has to be paid, and in addition to this certain fees have to be paid to the 'tolats' whose business it is to weigh the produce ; but these charges are not always fixed. (4) It is customary to make certain deduction from the prices paid to the producer, for example, a discount has to be allowed for cash payments. (5) In weighing the goods it is not infrequent to find that the local tolat who is generally friendly to the town dealer is in the habit of showing the weight of the goods in question to be somewhat less than real. (6) Troubles arise especially in the case of cotton with the quality of the goods even after they are weighed, and deductions may be made on this account. (7) In case of disputes regarding one or the other of the above mentioned difficulties, there are no rules and regulations to determine or to decide the issues which are invariably turned against the farmer. (8) As a rule, the number of middlemen between the primary producer and the final exporter or consumer is large. Taking all these factors into consideration we find that the producer is at a very great disadvantage in disposing of his goods and has to accept whatever price is paid to him, because it is well-known that he is not in a position to hold out for a long enough period. In other words, it may be said that the producer does not always get the advantage of rising prices.

In addition to these factors, there are certain other difficulties for which the farmer himself is responsible. In marketing his goods, the farmer does not usually take sufficient care to sort out the different qualities of his produce in a graded manner ; on the contrary, he does not hesitate to mix up the inferior sort of goods with superior in the hope of realising a higher value. Some attempt at grading is made in the marketing of mangoes. In the case of cotton, it became necessary to impose restrictions by law to prevent malpractices. The Cotton Transport Act

of 1923, and the Cotton Ginning and Pressing Factories' Act of 1925 were passed for this purpose. The cotton growing areas are marked out according to the quality of the cotton produced in each of them. Cotton of an inferior quality from one area is not allowed to be imported into another except under a license. Though this legislation created a good deal of dissatisfaction at first, if it succeeds in preserving the quality of cotton, it is likely to prove beneficial to the farmers in the long run.

Another factor which makes marketing both difficult and unfavourable to the producer is the variation in the weights and measures current in different parts of Gujarat. For example, when produce is bought, a maund is reckoned as equivalent to anything like 40 to 44 seers; when it is to be sold, it is reckoned as equal to 37½ to 40 seers. A bhar of cotton which is a unit of transaction in cotton is equal to 25 maunds in the Broach District, whereas it is equal to 24 maunds in Surat. The standard maund for all purposes for most parts in Gujarat is taken at 40 seers; in Surat it is taken at 37½ seers. So far as measurements are concerned, things are not so bad, but complications are introduced when things have to be marketed in a place like Bombay where a seer is equal to 28 tolas for things like corn, and 56 tolas for milk and other liquids.

## FINANCE

So far as necessaries are concerned, the farmer has to provide himself throughout the year both for direct consumption and for seed and other expenses of cultivation. His income on the other hand is generally confined to the seasonal period when he is in a position to market his crops. In view of this, the question of the method by which he finances himself in either case is of great importance. Generally speaking, the village bania or sowcar makes advances either in cash or kind or in both and enables the cultivator to carry on, particularly during the sowing season. As soon as the crops are ready, he ar-

ranges to remove the crop for sale, and his client is credited with what he considers to be the purchase price in part payment of the debt. In the case of food crops, a quantity sufficient for the farmer and his family is left, in the case of commercial crops, the whole quantity is removed. This is true of those areas and those classes which are comparatively backward. In those areas where the cultivators have become intelligent and conscious, they arrange to sell their crops direct to the grain merchants or the ginners in the nearest market town. We also find instances where several producers get together, pool their resources and arrange for the marketing of their joint produce which gives them an advantage. A few co-operative societies have been started recently to enable farmers to effectively join hands for the disposal of their produce.

In making his purchases of daily necessaries, most of the cultivators have dealings with the local shopkeepers who give things on credit. In many cases, the shopkeeper himself is a money-lender or has relations with other money-lenders in neighbouring areas. The price at which things are thus sold is generally higher than the price at which they would be given for cash. The beginnings of a farmer's debt are made in this way and once a farmer has got into the clutches of a money-lender, he finds it difficult to get out of them. It happens frequently that the farmer has to depend for the disposal of his crops on the same money-lender, and thus he is doubly hit both in his selling and in his buying transactions. In brief we find that the Gujarat cultivator sells his produce cheap and buys his finance dear.

## TRANSPORT

The difficulties in the marketing organisation to which we have referred are partly due to want of adequate facilities of transport and other modern means of communications. We find that goods are marketed in Gujarat both by water and land. Among the harbours in Gujarat may

be mentioned Dholera and Gogha in the district of Ahmedabad, Tankaria and Broach in the district of Broach, and Surat and Bulsar in the district of Surat. In addition to these, there are minor places on the coast where small craft ply to and fro, but of which sufficient information is not available. It is well known that the total trade carried by these harbours was at one time large, but it has gone down considerably in recent years. The chief reason of this state of affairs is that attention has been concentrated more on the development of Bombay harbour and of railways in the interior to feed the same. Though we hear of considerable development of ports in some of the Kathiawar states in recent years, we find that on the whole, the ports in Gujarat mentioned above have been neglected. In many of them we do not have adequate facilities even for the small indigenous boats and no provision has been made in some cases to prevent silting up at the mouths of the rivers.

Transportation by land is carried on by means of rail; the B.B. and C. I. Railway passes through the districts of Gujarat. So far as the interior is concerned, goods have to be carried over long distances to the station towns over roads which are not always in the best of condition. In place of carts, we find in recent years, a tendency to transport by means of motor lorries in certain parts where the roads are good enough for the purpose. There is great room both for the development of roads as well as for increasing railway mileage. For example, if Bulsar is linked up with Dhrampore on the one hand and Nasik on the other, a flourishing trade in wood and other things may be developed.

Among other means of communications we find that the number of post offices is limited; not every village has a post office though it may have a post box. There are many villages in which letters are delivered at intervals of 3 or 4 days. This is partly due to the condition of roads connecting these villages with towns, and partly to want of sufficient demand on the part of the people. It

must however be pointed out that the post office has an educational value ; inducement to send and receive letters to friends and relatives at a distance must result in a desire to learn the alphabet. At the same time it would be easy to know the current prices of goods in organised and other markets which would therefore enable the farmer to get better returns for his crops. The telegraphic and telephone service has not yet penetrated into the interior. It may be noted in this connection that in some states of Kathiawar, for example in Morvi and Gondal a telephonic service has been instituted at a rate cheaper than that charged for telegrams, and this has become popular with the local merchants.[1]

## SUBSIDIARY OCCUPATIONS

In view of the fact that agriculture is on the whole becoming an uneconomic industry, and that it affords work for about 180 days only during the year, the question of subsidiary occupations for the farmer is obviously of great importance. We find that large numbers of Kaliparaj cultivators idle away their time during the slack season, though some of them do go out as labourers in neighbouring towns or take to some work like wood felling and wood cutting. Similarly the Ujaliparaj farmers try to raise some crops by irrigation if they possess a well in the absence of which they waste their time. Social and religious ceremonies provide opportunities for wasting a good deal of time which could be utilised profitably during the slack season.[2]

One of the most paying occupations open to the agriculturist is the dairy. Most of the cultivators keep a cow or a buffalo for milking purposes ; part of this milk is used by the family, part is turned into ghee which is sold to local dealers who export it to the neighbouring cities.

1 Paper read before the Indian Economic Conference, January 1929 by Mr. K. H. Kamdar.

2 Cf. Royal Commission on Indian Agriculture, Evidence Vol. II, Part 2, p. 185.

The dairy industry on a somewhat larger scale has been established in the Kaira and Ahmedabad districts. Cream producing machines are set up, and the parties in charge of these machines buy milk from the cultivators, separate the cream and sell it to butter factories in Bombay or Ahmedabad. This industry received a great impetus during the War on account of the demand for the military. In the Anand Taluka of the Kaira district, there are about 50 cream producing machines and 38 casein factories where casein is produced from the remnant of the milk after cream is taken out of it. It has been calculated that North Gujarat receives more than Rs. 25 lakhs per year from the sale of this produce in Bombay and other cities. In spite of this it is true to say that there are great possibilities of further development of this industry.

The other important subsidiary occupation is spinning and weaving cotton. This industry which was once in a flourishing condition and had suffered greatly at the hands of machine made goods, has been revived by the swadeshi movement. The All-India Spinners' Association which has its head office at Ahmedabad does useful work in this connection. The total number of production centres under this Association in Gujarat is 18. There are 2,065 spinners, 194 weavers, 49 carders and 47 persons employed otherwise on the staff of this Association. In addition to these, there are workers who do their work independently of the Association, but of whom statistical information is not available. In view of the fact that Gujarat is a cotton producing area there is a great possibility for the development of this subsidiary occupation.

Carting agricultural produce is a good occupation in rural areas, but the possibilities of development in this connection are not great because of the competition of motor transport in recent years. There are possibilities for the development of poultry as an occupation ; it is at present confined to a few of the Kaliparaj, the Mahommedans and the Parsis. The making of mats, baskets and

other domestic requirements including eatables may also provide useful work both for men and women. If a comprehensive survey into the various existing cottage industries as well as to the possibilities of new cottage industries is made by the Department of Industries, one of the crying needs of Gujarat will be met. It may be noted that such surveys have been made in most of the other presidencies ; the Bombay Presidency happens to be backward in this connection.

## PRICES AND WAGES

Though the actual yield of agricultural produce has not been satisfactory, the monetary returns have increased largely since 1890. This is due to increase in prices of most of the principal articles that are produced. The following table gives weighted index numbers of the prices of wheat, paddy, bajri and jowar which constitute the food grains of the area.

Weighted Index Numbers of Prices of foodgrains in Gujarat[1]

| Year | Index No. | Year | Index No. | Year | Index No. | Year | Index No. |
|---|---|---|---|---|---|---|---|
| 1890 | 100 | 1899 | 131 | 1908 | 160 | 1916 | 146 |
| 1891 | 107 | 1900 | 185 | 1909 | 137 | 1917 | 134 |
| 1892 | 106 | 1901 | 121 | 1910 | 120 | 1918 | 274 |
| 1893 | 102 | 1902 | 127 | 1911 | 128 | 1919 | 347 |
| 1894 | 103 | 1903 | 91 | 1912 | 149 | 1920 | 260 |
| 1895 | 102 | 1904 | 95 | 1913 | 134 | 1921 | 290 |
| 1896 | 130 | 1905 | 120 | 1914 | 159 | 1922 | 243 |
| 1897 | 161 | 1906 | 128 | 1915 | 156 | 1923 | 200 |
| 1898 | 104 | 1907 | 124 | | | | |

We find from the table that though there are fluctuations till 1905 partly due to famine conditions at the end

1 Calculated on the basis of prices given in Survey and Settlement Reports of the Talukas of Gujarat.

of the last century, from 1905 we have an era of high prices. During the war, the prices rose still further, the maximum rise being in 1919 from which date there has been a gradual fall though we have not yet reached the pre-war level.

Contrary to expectations this great rise in prices has not led to a permanent advantage to the Gujarat peasant. There have been signs of prosperity here and there ; new houses have been built in some parts ; the habits of dress have slightly changed, new wants have been created, for example, taking tea ; some luxuries can be noticed, like smoking cigarettes and so on. If we consider the problem not from superficial indications, but from the point of view of the cost of cultivation, we find that the cost has increased in a greater proportion than the rise in the prices of agricultural produce. In the absence of detailed data, we shall take the following figures. The daily rate of wages of field labourers and of skilled labourers whose services are indispensable to the peasant for making new implements or repairing old ones, has risen 3½ times in the case of the former and 4 times in the case of the latter since 1900 as shown below.

| Year | FIELD LABOUR | | SKILLED LABOUR | |
|---|---|---|---|---|
| | Daily average wage | Index No. | Daily average wage | Index No. |
| | Rs. As. Ps. | | Rs. As. Ps. | |
| 1900 | 0—2—3 | 100 | 0— 7—3 | 100 |
| 1922 | 0—8—0 | 356 | 1—13—6 | 407 |

It is obvious from these figures that the cultivator has not gained but has probably lost from the rise in prices, but this generalization is subject to several limitations because the assumptions made in such calculations are not all true in every case. (1) The cultivator, if he grows corn, does not sell the whole of it but retains a part for his own consumption for the year. To that extent therefore he does not enter into the market either as a seller or

as a buyer, and the changes in prices therefore may not affect him. (2) In calculating the cost of cultivation we have to include several items besides labour, such as the cost of seed and manure which the cultivator does not always buy. (3) Most of the labour on the fields is done by the farmer and his family and it is not necessary for him to pay cash by way of wages to labourers. (4) It is customary in several parts of rural Gujarat to pay wages partly in kind or corn which is raised on the farm. It is obvious therefore that it is difficult to make general statements regarding the profitableness or otherwise of agriculture in Gujarat with the help of figures of prices. It may however be pointed out that the era of falling prices which has begun since 1923 may do great harm to the farmers, because, whereas his receipts are going down, he is not in a position to curtail his expenditure in proportion, partly because his habits of life have become somewhat more expensive, and partly because wages are not going down in proportion.

## INDEBTEDNESS

A correct idea of the extent and nature of indebtedness in Gujarat cannot be had unless intensive enquiries are made for this purpose. We propose to make an estimate in the following manner. The Baroda Government appointed an officer in 1911 to report on the agricultural indebtedness of the people of the state. He estimated the indebtedness of Baroda territory at more than 8 crores of rupees in 1912. The total land assessment for the same year for this territory was more than Rs. one crore. The Baroda territory is interspersed with British Gujarat, and is in many ways similar to it in the nature of the soil and the character of the people, and their general economic life. If we assume therefore that the amount of indebtedness in British Gujarat bears the same proportion to land revenue as it does in the Baroda State, we may not be far from the truth. The assessment of agricultural land in British Gujarat was Rs. 124 lakhs in 1926-27; if we

multiply this by 8 we get 990 lakhs as a rough estimate of rural indebtedness in Gujarat.

The Broomfield Committee which recently reported on the Bardoli Settlement examined 43 out of 137 villages, and found that the debts in these villages amounted to about Rs. 33 lakhs, and if we work at this estimate for the whole of Gujarat, we shall find that the above estimate of about Rs. 10 crores is not an exaggeration.

More than the volume of the debt we have to consider its nature. If debt is incurred for productive purposes, it is certainly not a matter of great concern, but if it is for unproductive purposes, then the problem is really serious. Anyone connected with the cultivating classes in Gujarat will at once realise that a large part of the debt is due not so much for the development of the agricultural industry but for the expenditure on the social and religious customs and ceremonies which the farmer thinks his duty to perform.[1]

The continuation and accumulation of the debt is due to several factors which may be thus summarised. (1) The facilities offered to the cultivator by the money lenders to incur debt with ease and in secrecy; (2) usurious rates of interest and the heavy commissions charged by the money lenders; (3) the general illiteracy of the people which leads to absence of proper accounts and gives opportunities to the money lenders for fraudulent practice; (4) the inheritance of debt from father to son and (5) lack of adequate banking facilities.

The parties from which debts are incurred by the cultivator may be divided into three classes. (1) private money lenders including banias and pathans, and shopkeepers who sell on credit, (2) the Government which advances money in the form of tagavi loans and (3) co-operative credit societies. In 1926-27 we find that the state claimed Rs. 1582 thousand from the people by way of tagavi; the co-operative societies claimed Rs. 3037 thousand, the two together making a total of Rs. 4619

1 Royal Commission on Indian Agriculture, Evidence Vol. II, Part 2, p. 160.

thousand. The remainder of the debt is due to private money lenders for which we do not have reliable data. In other words, if the above estimate of about 10 crores of debt for the whole of Gujarat is correct, then we find that only 1/20th is due to the government and the co-operative societies, the remainder to the money-lenders. In other words, the peasantry of Gujarat is bearing a dead weight of a large volume of debt which is incurred generally for unproductive purposes from private money-lenders who charge large commissions, and heavy rates of interest varying from 12 to 25 per cent. for loans in cash, and from 25 to 100 per cent. for loans in kind.

Though the co-operative credit movement has made progress,[1] it has only touched the fringe of the population so far, and the problem before it is immense as can be seen from the above mentioned facts. It may be pointed out that the societies which are already in existence are not in the best of condition; we find, for example, that on 31st March 1928, the amount of arrears was Rs. 15.4 lakhs or more than 37 per cent. of the working capital of all societies put together. In addition to the credit societies, a few non-credit societies have been started which are 28 in number. They are for different purposes, for cattle insurance, for cotton sale and seed supply, for ginning and so on. The cotton sale and seed supply and the ginning societies are flourishing, the rest do not show a satisfactory progress. It is necessary to help the farmer to take to non-credit co-operation both for production and marketing which will increase his earning capacity and enable him to get out of the clutches of the money lenders.

## LAND REVENUE

Land revenue forms the most important item in the revenue receipts of all Provincial Governments. It

1 The progress of the Co-operative movement in Gujarat may be seen from the following figures:—

| Year | No. of Societies | No. of members | Working capital Rs. | Revenue fund Rs. |
|---|---|---|---|---|
| 1908 | 26 | 1912 | 50,480 | 1,669 |
| 1928 | 676 | 44382 | 41,54,767 | 4,49,545 |

would be an interesting piece of investigation if we could get exact details of the amount of land revenue paid by British Gujarat on the one hand, and the expenditure incurred by the state for the amelioration of the farmers of Gujarat on the other. Without going into these details, we may observe that in view of the highly unsatisfactory condition of agricultural life, land revenue is becoming a heavy burden to the farmers in most parts of India and Gujarat is not an exception. The land revenue policy of the Government raises many complicated issues which it is beyond the scope of this work to go into. But it is well known that recent events have brought this question to the forefront, and the policy will have to be revised at an early date. The agitation in Bardoli Taluka of the Surat District, the subsequent enquiry into the Bardoli settlement by the Broomfield Committee and the acceptance of the grievances of the people in general, the announcement of the Government of Bombay that a new Land Revenue Bill will be introduced into the Council as soon as possible, and the consciousness on the part of the people to press for a more equitable policy in this connection—all these signs show on the one hand that land revenue has been a serious burden in the past, and that on the other steps are likely to be taken to make its burden more equitable in the future.

## CHAPTER—II

# THE PHYSICAL BACKGROUND.

## INTRODUCTION

*Location of the Village:*

The village of Atgam is situated on the eastern boundary of the Bulsar Taluka, Surat District. To its immediate west lies Khergam, one of the big villages of the adjoining Chikhli Taluka, which has a permanent market. To its east lies at a distance of about 9 miles Bulsar, a well known market town, railway station and the administrative centre of the Bulsar Taluka. It is connected with both these places by what is known as the Khergam-Bulsar road which covers a distance of about 12 miles. A bye-road to the north at a distance of about 7 miles from Bulsar leads us to the heart of the village under enquiry. By the side of the village flows the Bam, which, though merely a rivulet at this part of its course, gradually develops into a large river as it approaches the Arabian Sea to the west.

*Its structure:*

The structure of this village is characteristic of the kind of people who form the bulk of its inhabitants. It is a Kaliparaj village. The Kaliparaj are well known for their habit of staying in small groups of eight to ten families in separate areas more or less distant from one another. These are called "falias." Atgam consists of ten such falias which lie at different distances from its centre varying from half a mile to three and a half miles. These falias are linked with the central place, which is known as the village site, by means of small fair-weather tracks.

This village site covers an area of only one acre and four Gunthas. It is mainly inhabited by members of the Ujaliparaj community like Banias, Brahmins, Rajputs, Kolis, Suthars, Darjis, Mochis, Machhis, Valands, and Mahommedans and Parsis. There are however a few Dubla families—a section of the Kaliparaj. The vernacular school, chawdi and the Post Office are located here. In this place are found two grocers' shops and an open space in front of the village school where under a tamarind tree some villager occasionally sets up a temporary shop for selling chillies, onions, garlic and a few vegetables. Here are also seen a temple of Rama and a mosque. On its outskirts to the east dwell the untouchables known in this part as Dheds.

Thus though the village site presents varied phases of life, economic, educational, administrative and religious, these are confined only to the Ujaliparaj who constitute a small section of the village community. The real social and economic life of this village can be seen not here but in the falias which are populated mainly by the Kaliparaj.

*Its surroundings:*

The village is bounded on the east by Vav and Khergam, villages of the Chikhli Taluka ; on the north by Chari, a village of the same Taluka ; on the west by Dhanori and Fanaswada and on the south by Segwa, all the last three being villages of the Bulsar Taluka. It is linked with all these villages of the two Talukas by small fair-weather tracks.

The object of this work is to attempt a study of the social and economic life of Atgam, the village whose location, structure and surroundings we have just described. The social and economic life of a group of people is moulded by its natural environment. We, therefore, propose to deal in this Chapter with the physical features or the natural environment which condition the life of the people of Atgam.

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The principal features of this natural environment are the following with which we shall deal in order :

(1) Rainfall.
(2) Climate.
(3) The soils of the village.
(4) Its water-supply.

(1) *Rainfall.*

*Its importance in the economy of the village:*

Rainfall is of supreme importance in the rural economy of our country and especially in a region like South-Gujarat,[1] which suffers from a lack of canal irrigation. The village under survey is typical of this whole region in this respect. Paddy, the principal food-crop of this village, requires a large amount of water. So does sugar-cane which is its chief commercial crop. The former depends entirely on rain. Though the latter is an irrigated crop, it is irrigated mainly from wells which in turn depend for their supply of water on the rains. The economy of the village is therefore, materially governed by rainfall, which must be both adequate and timely.

*Volume and distribution of rainfall:*

In order to determine this, we took the figures of rainfall as recorded in the Government dispensary at Khergam, a village on the eastern border of Atgam. We have found on enquiry that the rainfall in Atgam is about the same as at Khergam. We also ascertained the corresponding figures for Bulsar. From an analysis of these figures, we find that the following tendencies are in operation.

(i) During the last 15 years the volume of rainfall at Atgam has varied from about 40 inches to about 116 inches. The average for the whole period is nearly 76 inches a year.

1 'South Gujarat' and 'Surat District' are used in this work as synonymous terms.

(ii) The rainy season is spread over mainly four months, June, July, August and September. About 95 per cent. of the total annual rainfall falls during this period.

(iii) On an average the rainfall at Bulsar to the west of Atgam is less than that in Atgam. This suggests the local nature of rainfall which varies within a distance of 9 miles.

(iv) Out of the last 15 years there were :

| | | |
|---|---|---|
| 4 | with rainfall | below 50 inches. |
| 2 | ,, ,, | between 50 and 70 inches. |
| 3 | ,, ,, | ,, 70 ,, 90 ,, |
| 5 | ,, ,, | ,, 90 ,, 110 ,, |
| 1 | ,, ,, | above 110 inches. |

If any conclusion can be drawn from these figures it is only this that there is an even probability of a season being a year of partial failure of crops or one of bumper crops. But such a conclusion does not seem to be confirmed by the information regarding rainfall we received from some of the intelligent villagers. They told us that even 45 inches of rainfall, if the same is distributed over different months as shown below will go to make an average year, if not a good year. The distribution of rainfall desired by the people is as under :

| Period | Rainfall in inches | Remarks |
|---|---|---|
| 13th to 20th June | 8 | For preparing the soil for sowing seeds. |
| 26th to 30th June | 2 | For broadcasting seeds of paddy and other cereal crops. |
| 1st to 7th July | 7 | Necessary for the growth of seedlings of paddy, nagli and other crops. |
| 7th to 15th July | 10 | Necessary for making the beds, prepared for sowing seedlings of paddy after transplantation, soft and muddy. |
| 15th to 31st July | 3 | For transplanting seedlings of paddy and nagli. |

| Period | Rainfall in inches | Remarks |
|---|---|---|
| 1st to 30th Aug. | 10 | Necessary for the growth of all crops. |
| 1st to 30th Septr. | 10 | Necessary and also useful for Rabi crops. |
| 1st to 31st Oct. | 2 | Useful for Rabi crops. |

This shows that the seasonal distribution of rainfall is of far greater importance than its total quantity. We may mention two concrete instances one of which we gathered from our talks with the people on this subject, and the other from our personal observation, to verify this statement.

(i) In the year 1925-26 the first few showers came in early June. The cultivators broadcasted the seeds of paddy in the beds prepared for them. For a month it did not rain with the result that the seedlings shot up too high and were rendered unfit for easy transplantation. The final result was that during the course of removing the seedlings from their nursery to other beds a considerable number was wasted as they could not be picked up from the nursery along with their roots which are necessary for giving them strength and vigour when transferred to new beds. This involved a serious decrease in the total output of paddy.

(ii) In 1927-28 during the course of the present enquiry we could see that it did not rain adequately when expected in July and August, and poured when the paddy plants were drooping with the load of paddy sheaves. The result was that in some plots the paddy plants were levelled to the ground, and in others they rotted because of excessive rain. The cultivator is at a loss to understand these freaks of nature. He attributes all these events to the working of the Almighty and resignedly says, "The cultivator is wise only after the harvests"[1] which means that he is not sure of the out-turn of his crops till he harvests them and actually sees the heap of corn.

[1] The original proverb runs thus: 'कणबी कारतके डाह्या.'

The following analysis of the figures of rainfall showing the frequency of particular ranges of rainfall for the last 15 years will be of interest :

| | June | July | August | September | October |
|---|---|---|---|---|---|
| Below 1 inch . . . . . . | 1 | — | — | 1 | 3 |
| From 1 to 5 inches . . . | 3 | — | — | 4 | 3 |
| ,, 5 to 10 ,, . . . | 4 | 1 | 1 | 4 | 1 |
| ,, 10 to 15 ,, . . . | 2 | 1 | 2 | 2 | — |
| ,, 15 to 20 ,, . . . | 3 | 5 | 7 | 1 | 1 |
| ,, 20 to 25 ,, . . . | 1 | 1 | 1 | 1 | — |
| Above 25 inches . . . . | 1 | 7 | 4 | 3 | — |

All that can be inferred from these figures is (i) that there is a great probability of more than five inches of rainfall in June and more than fifteen inches in July and August ; (2) that in September there is an even chance that the rainfall will be below five inches or above five inches and in October below five inches or very little.

The following are the main characteristics of rainfall in this area as shown by the discussion so far :

(i) The total quantity of rainfall is greatly variable.
(ii) Equally variable is its distribution in different months.
(iii) The rainfall in Atgam is of a local character.
(iv) The rainy season is mainly confined to four months, June, July, August and September. The main conclusion is that the seasonal nature of suitable distribution of rainfall is more important than its total quantity.

*Rainfall and the nature of seasons :*

In a place where rainfall plays an important part in shaping the nature of the season it will not be considered out of place to discuss here the allied subject of the nature of the last fifteen seasons. It is obvious from our analysis of the statistics of rainfall that it does not give us any clue to the exact nature of each season. We have, therefore,

devised the method[1] of constructing indices of annawari for each year with a view to determine the nature of each season. We are conscious that this method cannot give a perfectly accurate result regarding the nature of a particular season but we believe that it does show the relative nature of different seasons. We may as well mention that this method devised for judging the nature of the seasons is a roundabout one but we had to resort to it in absence of a systematic record of annawari[2] valuation of crops for each of the last fifteen years for this village or at least for the whole Taluka.

Judged by this annawari, we find that out of the last fifteen seasons,

| | | |
|---|---|---|
| 3 | are | very good[3] |
| 2 | ,, | good |
| 5 | ,, | fair |
| 3 | ,, | bad |
| 2 | ,, | very bad |

Though the terms here used are arbitrary they give us a fairly accurate idea as to the relative position of the season. In order to make ourselves doubly sure about these results we consulted a few intelligent villagers including a money-lender who has an admirably retentive memory with regard to this subject. We were happy to find that our view was generally confirmed. They however pointed out two differences which we may note with advantage.

(i) Though the indices of annawari show the years 1915-16 and 1918-19 to be very bad and 1925-26 a bad one, as a matter of experience the worst years were 1918-19 and 1925-26 when remissions of land revenue were granted by the Government.

(ii) The season of 1912-13 was not so bad as is suggested by the index number.

1 For an explanation of the method vide Appendix II.
2 It may be noted that there are a few figures of annawari valuation of crops recorded in one of the Taluka papers but they are available only for the years 1915-16, 1923-24, 1925-26, and 1926-27.
3 For details see appendix II.

It will be obvious that these differences regarding the exact nature of years are not great and may be neglected when we take the whole period of fifteen years for our discussion.

Looking at the indices from another standpoint we find that on an average out of every five consecutive years there are three good seasons and two bad seasons. We may however note that a 'bad' year does not mean in this village or the neighbouring area a total absence of crops as in the famine zones of the Deccan.

(2) *Climate*

*Its importance in the economy of the village* : The importance of climate, in general, cannot be overrated in the study of rural areas of any country. 'Climate' expresses three conditions—namely light, heat and moisture. All these are essential to the growth of different forms of vegetation. It is however necessary to bear in mind that an excess or deficit of each proves harmful to all of them.

*Normal temperature in the village* : In our study of the village we found that the temperature varied from 53 to 108. The following figures obtained from the Khergam Government Dispensary represent the normal temperature in the village under survey.

| | | Maximum. | Minimum. |
|---|---|---|---|
| June, | 1926 | 104°F | 84°F |
| July, | ,, | 95 ,, | 78 ,, |
| August, | ,, | 92 ,, | 78 ,, |
| September, | ,, | 100 ,, | 93 ,, |
| October, | ,, | 94 ,, | 64 ,, |
| November, | ,, | 94 ,, | 60 ,, |
| December, | ,, | 91 ,, | 53 ,, |
| January, | 1927 | 90 ,, | 54 ,, |
| February, | ,, | 95 ,, | 54 ,, |
| March, | ,, | 104 ,, | 58 ,, |
| April, | ,, | 108 ,, | 74 ,, |
| May, | ,, | 106 ,, | 84 ,, |

It is obvious that January is the coldest and April and May the hottest months in the year.

*Its effects upon agriculture and the agriculturist* :. Climate plays in this village an important part in determining the total yield of rabi and hot-weather crops. If the cold is moderate, it contributes to a large yield of wal (beans) which is a winter crop. If the heat is moderate we have a large yield of well-developed mango-fruits which are picked in summer. But excess of either proves ruinous to the respective crops. Intensity of cold resulting in a fall of dew spoils the crop of wal. Intensity of heat accompanied by violent winds frequently blows raw mango fruits off the trees and causes a heavy loss to the grower.

These two aspects of climate have also their marked effects on the efficiency of the agriculturist. Intensity of cold and heat are well-known for their enervating effects on man. But we may note that effects of the former are intensified in the case of the average Atgam cultivator who has too scanty clothes to cover his body as a protection against the inclemencies of weather in the cold season.

(3) *The Soil of the Village.*

*Its importance* : Though rainfall is a factor of supreme importance in all forms of cultivation and climatic conditions not less important, the soil—the texture of land—is the very basis of cultivation, and the results are therefore greatly influenced by the nature of the soil. It is easy to understand that with the most adequate and seasonal rainfall and favourable climate, the peasant can reap hardly anything unless he has a fertile piece of land. No doubt fertility of land can be augmented by the application of manures but this presupposes a thorough knowledge of the nature of the soil and a capacity to pay for the manures.

*Classes of soil* : Three classes of soil are found in this village : Bagayat (garden-crop-land), Kyari (rice-crop-land) and Jarayat (dry-crop-land). The areas under

them as determined by the Government in 1899 at the time of the First Revision Settlement are given below :

| | Acres |
|---|---|
| Bagayat . . . . . . . | 138 |
| Kyari . . . . . . . . | 397 |
| Jarayat . . . . . . . | 2926 |
| *Total* . | 3461 |

*Nature of the soil* : The above mentioned figures do not give us a definite idea of the exact nature of the soil found in the village. We, therefore, obtained from the Government the original figures of anna valuation attached to different fields for the purposes of the Settlement and constructed the following table based on them.

*Table showing the nature of the soil in Atgam.*

| ANNA-VALUATION | ACRES | |
|---|---|---|
| 18 and 18½ annas and above | 75 | |
| 17 ,, 17½ ,, ,, ,, | 10 | |
| 16 ,, 16½ ,, ,, ,, | 12 | |
| 15 ,, 15½ ,, ,, ,, | 24 | |
| 14 ,, 14½ ,, ,, ,, | 66 | |
| 13 ,, 13½ ,, ,, ,, | 79 | 266 |
| 12 ,, 12½ ,, ,, ,, | 67 | |
| 11 ,, 11½ ,, ,, ,, | 82 | |
| 10 ,, 10½ ,, ,, ,, | 282 | |
| 9 ,, 9½ ,, ,, ,, | 319 | |
| 8 ,, 8½ ,, ,, ,, | 525 | 1275 |
| 7 ,, 7½ ,, ,, ,, | 879 | |
| 6 ,, 6½ ,, ,, ,, | 675 | |
| 5 ,, 5½ ,, ,, ,, | 325 | |
| 4 ,, 4½ ,, ,, ,, | 40 | 1919 |

| | | |
|---|---|---|
| 3 and $3\frac{1}{2}$ annas and above | 1 | |
| 2 ,, $2\frac{1}{2}$ ,, ,, ,, | 0 | |
| 1 ,, $1\frac{1}{2}$ ,, ,, ,, | 0 | 1 |

Summarising the above figures we get the following:—

| | Acres | Percentage of each to the total |
|---|---|---|
| Land over 12 annas or soil considered to be above average value . . . . . . | 266 | 7 |
| ,, 8 to 12 annas inclusive or of medium value . . . . . . . . . . . . | 1275 | 36 |
| ,, 4 to $7\frac{1}{2}$ annas inclusive or soil of poor character . . . . . . . . . . . | 1919 | 53 |
| ,, under 4 annas or soil agriculturally worthless . . . . . . . . . . . | 1 | |
| | 3461 | |
| Waste land . | 60 | |
| Public lands . | 67 | |
| Total area of the village . | 3588 | |

Thus the major portion of the land (53 per cent.) is of poor character and about 36 per cent. is of medium value. A careful scrutiny of these figures shows that a very great portion of the land ranges between 5 and $10\frac{1}{2}$ annas. The aggregate area between these values comes to 3005 acres or 84 per cent. of the total area of the village. From this it is obvious that the general nature of the soil of the village may be described to be worth 8 annas in the rupee. This is also the figure we have got by calculating the average valuation of the whole assessed land of the village. The conclusion, therefore, is that the soil of this village is slightly better than soil of poor character. This was after all an indirect way of ascertaining the nature of the soil. In order to ascertain it by a direct method we took a few samples of Kyari and Jarayat soils in the manner prescribed by the Agricultural Chemist to the Government of Bombay. The following are the results of

physical and chemical analysis of two samples made kindly by him for us :

*Physical analysis of a sample of Kyari soil*

| | Surface soil (0" to 12" deep) % | Sub soil (12" to 24" deep) % |
|---|---|---|
| 1. Clay and finest silt | 16·26 | 16·58 |
| 2. Fine silt | 5·71 | 6·01 |
| 3. Medium silt | 4·54 | 5·78 |
| 4. Coarse silt | 22·26 | 22·40 |
| 5. Fine sand | 46·79 | 42·20 |
| 6. Coarse sand | 4·44 | 7·03 |

*Chemical analysis of the same sample*

| | Surface soil % | Sub soil % |
|---|---|---|
| Stones | 10·43 | 11·00 |
| Moisture | 4·54 | 4·76 |
| Loss on ignition (organic matter) | 8·02 | 7·18 |
| Silica (acid insoluble matter) | 69·36 | 62·52 |
| Lime | 4·97 | 7·66 |
| Nitrogen | 0·054 | 0·038 |
| Phosphoric acid | 0·055 | 0·057 |
| Potash | 0·27 | 0·25 |

*Physical analysis of a sample of Jarayat soil*

| | Surface soil (0" to 12" deep) % | Sub Soil (12" to 24" deep) % |
|---|---|---|
| 1. Clay and finest silt | 16·60 | 19·35 |
| 2. Fine silt | 6·79 | 7·62 |
| 3. Medium silt | 5·08 | 5·16 |
| 4. Coarse silt | 20·72 | 20·96 |
| 5. Fine sand | 50·04 | 45·85 |
| 6. Coarse sand | 1·77 | 1·05 |

*Chemical analysis of the same sample of Jarayat soil*

| | Surface soil % | Sub soil % |
|---|---|---|
| Stones . . . . . . . | nil | nil |
| Moisture . . . . . . | 4·50 | 5·56 |
| Loss on ignition (organic matter) . . . . . | 6·08 | 6·96 |
| Silica (acid insoluble matter) . . . . . | 74·56 | 72·42 |
| Lime . . . . . . . . . | 0·83 | 0·72 |
| Nitrogen . . . . . . | 0·081 | 0·054 |
| Phosphoric acid . . . | 0·063 | 0·026 |
| Potash . . . . . . . | 0·23 | 0·27 |

Without making the discussion of the nature of the soil technical we may mention, in brief, that a glance at the quantities of nitrogen, phosphoric acid and potash present in these typical samples will show how the soil of the village is deficient in these three substances which form the most important plant-foods. The quantities of these plant-foods present in the soil justify us in our conclusion that the soil of the village is only slightly better than one of poor quality.[1]

(4) *Water-supply of the village.*

The importance of water-supply is obvious to a village where sugarcane is the principal commercial crop.

*Sources of water-supply* : The only sources of water-supply in the village under study are (a) Khadies or streamlets, (b) tanks and (c) wells.

1 Cf. "Owing to the very undulating surface of the country, the soil, except in a few favoured localities is very poor...............It principally consists of ferruginous loam not very productive for dry-crop cultivation...... The Kali basar soil occupies a very small portion of the surface and is almost entirely found in the rice-beds.........The prevailing soil......superabounds with lime, a quality injurious to all unirrigated crops. The presence also of the protoxide of iron necessitates a system of following after an interval of a few years to render cultivation at all remunerative;" p. 44, Appendix R, Selections from the Records of the Bombay Government. No. CCC III—New Series: Papers relating to the Revision Survey Settlement of the Bulsar Taluka, 1900.

(a) *Khadies or streamlets* : In this village there are four Khadies. One forms its natural boundary on the south and south-west ; and another on the north and north-east. Two other streamlets pass through the village. In spite of such a good number of streamlets the village has inadequate supply of water for irrigation. The reason is that the water in each of these streamlets is soaked up into the bed as early as January except at few points of its course.

(b) *Tanks* : The village has fourteen tanks. Four of these are owned by government and the remaining by private individuals. The same reason as is given above for the inadequacy of water-supply holds good in this case too.

(c) *Wells* : Wells constitute almost the only source of water for irrigation in this village when the Khadies and tanks are empty. Of all the Talukas of the Surat District Bulsar possesses the highest number of wells used for irrigation, since sugarcane, a wholly irrigated crop, is its principal commercial crop. In this particular, Atgam is representative of the Bulsar Taluka in which it is situated. It possesses no less than eighty-six wells. Of these only one has fallen out of use ; 16 are used for drinking purposes only, and the remaining 69 are used both for drinking and for irrigation. Of the 86, 5 are owned by government, 7 by groups of villagers and the rest by private individuals.

In view of the importance of wells in the village under study it is necessary to note their principal characteristics and how they affect the activities of the people. The following are some of them :

(i) Water is generally found in most of these wells at the depth of about 30 to 40 feet. There are, however, about a dozen wells in the south-west corner of the village where it is available at a comparatively higher level varying from 25 to 30 feet from the top. It is noteworthy that a little to the west of the village site in Survey numbers 484 and 265 are two wells that

contain a perennial supply of water at a still higher level.

(ii) In the last two wells mentioned above, water can be had for the whole year and is available in sufficient quantity. In some of the remaining wells it gets exhausted when a well is worked for a full day. In others it is exhausted earlier, even if the well is worked for half a day. This fact obviously forms one of the obstacles to the increase in area under irrigated crops.

(iii) Barring a few exceptions, stones are found at the bottom of most of the wells since the springs of water have their sources in rocky strata. This renders it necessary for the cultivator to put a bore in the well. On enquiry we found that several wells had indigenous bores piercing the stones at the bottom and allowing the currents of water to shoot up. Of late we have often heard of the utility and efficiency of steam-boring. From personal experience we say that the cultivator in this village like his compeer in the west is eager to avail himself of this useful device for getting a perennial supply of water. But unfortunately he is handicapped by lack of capital. It may be noted that steam-boring operations have been carried out in some villages of this Taluka but they have not invariably turned out a success. In some cases the drill worked by steam could not pierce the stone lying at the bottom of the wells. In view of this sad experience and the heavy expenses involved in the operation, steam-boring is naturally considered a gamble by the average farmer who hardly makes two ends meet. It will certainly be an important improvement on the existing state of affairs if government were to do the work of boring free of charge at least in the beginning.

(iv) Because of this characteristic of wells the work of sinking a well is also considered a gamble. We have given the cost of sinking a well supplied to us by one of the Koli cultivators in Appendix III. As a rule the cost varies from Rupees 400 to Rupees 800 according as the depth at which water is found is less or more.

*Wells and irrigated area* : While discussing the principal characteristics of wells as a source of water, we may note their relation to the irrigated area in recent years. The following are the figures of the total irrigated area for the last ten years, the irrigation being done chiefly by means of well-water.

| Year | Total area irrigated in Acres |
|---|---|
| 1917-18 | 40 |
| 1918-19 | 82 |
| 1919-20 | 12 |
| 1920-21 | Not available |
| 1921-22 | 41 |
| 1922-23 | 41 |
| 1923-24 | 52 |
| 1924-25 | 36 |
| 1925-26 | 34 |
| 1926-27 | 26 |

These figures show that the irrigated area has varied from 12 to 82 acres during the last ten years. The variation is very great. It is also strange that the highest figure of area under irrigation is found for 1918-19 which was a disastrous famine year. The explanation for this fact given below will serve as a key to the variations in general.

Such discrepancies occur because of the method of recording the rainfall and the yields of crops. In 1917-18 there was a good rainfall with the consequence that the wells were full. A large number of people therefore planted sugarcane in the early part of 1918 and began irrigating their fields, say from January 1918. The crops came out later in the year and were included as for the year 1918-1919. Thus though the rainfall for 1918-19 was meagre and it was a famine year, due to the causes mentioned above, we get the figure of a large amount of irrigation and irrigated crops for the same year. This incidentally shows (i) to what extent rainfall governs the

area under irrigated crops and (ii) to what extent wells from which sugarcane fields are irrigated depend on rainfall for their water-supply. In connection with this topic we may consider another question of some importance whether the existing irrigation wells are used to their fullest capacity. We found that they are not. According to our calculation about 96 acres can be irrigated with the help of existing wells. The actual area irrigated in the year of enquiry was only 26 acres. In considering the reasons why there is this difference between the possible and the actual irrigated area we must remember that sugarcane is the only irrigated crop in this village. The following seem to be the main reasons for this disparity : (i) Sugarcane, the only irrigated crop of this area, is exhausting both to the soil and the grower. To the big farmer who works with hired labour it is a losing concern at the present market price of gul.[1] To the small farmer it means considerable labour patiently applied for a long time. And it is difficult to expect this from the average small peasant proprietor of the village who belongs to the Kaliparaj community, and is notorious for his love of liquor and toddy.

Regarding its exhausting effect on the soil, the big farmer is out of consideration since he loses in this kind of cultivation as we shall see later. A small farmer on the other hand, even if he desires to grow sugarcane, does not possess a sufficiently large holding to be able to cultivate sugarcane on different plots from year to year.

(ii) It is a very expensive crop. It requires rich manuring, a good pair of bullocks to fetch water from wells to irrigate it, and a large amount of cash for the purchase of seeds and manufacturing gul out of it. This is difficult for the small farmer who is short of capital.

(iii) There is uncertainty about this crop both as regards its yield and the price it may command.

These causes can be removed provided

1 *This will be explained in Chapter VI.*

(i) the average Kaliparaj farmer is made to understand, through education and propaganda his own well-being; and

(ii) better credit facilities are made available to both classes of farmers big and small at a low rate of interest.

We believe that the area under irrigated crops can be increased to a figure larger than 96 acres if boring operations are performed by government or if bunds are erected at different points in the Auranga river that flows only at a distance of three miles to the South of this village, and water is thereby provided to the village under study as well as to other neighbouring villages through canals.

## MAIN CONCLUSIONS

Having thus considered the four principal features of the environment, we may summarise the main conclusions as under :

(1) The rainfall in the village under study is uncertain both in its total quantity and as regards its seasonal distribution.

(2) Climatic conditions of this place vary greatly and exercise a powerful influence for good or bad on the farmer and his occupation.

(3) The soils of the village are deficient in plant-foods and largely poor in character.

(4) The only permanent source of irrigation is wells whose supply of water is uncertain.

## CHAPTER—III

# THE PEOPLE OF THE VILLAGE.

## THE COMPOSITION OF THE VILLAGE

The population of Atgam is divided into twenty three castes containing in all 2560 persons. The following table gives the list of castes along with the numbers of families and persons in each.

| Name of Caste | | Number of Families | Number of Persons |
|---|---|---|---|
| | Dhodias | 225 | 1332 |
| | Dublas | 53 | 274 |
| | Naikas | 14 | 68 |
| | Kuknas | 2 | 16 |
| *Total* | *Kaliparaj* | 294 | 1690 |
| | Kolis | 61 | 332 |
| | Brahmins[1] | 6 | 39 |
| | Rajputs | 4 | 12 |
| (Shepherds) | Bharwads | 5 | 32 |
| (Fishermen) | Machhis | 6 | 30 |
| (Untouchables) | Dheds | 20 | 146 |
| (Tailors) | Darjis | 2 | 10 |
| (Goldsmiths) | Sonis | 3 | 9 |
| (Carpenters and Ironsmiths) | Suthars | 4 | 18 |
| (Barbers) | Valands | 5 | 22 |
| (Potters) | Kumbhars | 8 | 41 |
| (Tanners) | Khalpas | 8 | 33 |
| (Shoemakers) | Mochis | 4 | 16 |
| (Depressed class) | Bhangis | 1 | 7 |
| | Banias | 5 | 18 |

1 This group of families consists of five Anavil Brahmins and one family of Modh Brahmin.

| Name of Caste | Number of Families | Number of Persons |
|---|---|---|
| Mixed group[1] | 3 | 7 |
| Parsis[2] | 3 | 19 |
| Mahomedans[2] | 18 | 114 |
| Christians[2] | 1 | 5 |
| *Total Ujaliparaj* | 167 | 870 |
| *Grand total for the village* | 461 | 2560 |

It is evident that the Kaliparaj constitute two-thirds of the population, whereas the Ujaliparaj account for the remaining one-third. Whereas the characteristics of the Ujaliparaj are easy to trace because of their greater intelligence and better organization, those of the Kaliparaj are difficult of understanding when they form only a minority in a village. The fact that the percentage of the Kaliparaj is large in this village has thus enabled us to understand them better; there has been at the same time no disadvantage in studying the characteristics of the Ujaliparaj in spite of their small numbers because of reasons already given.

Secondly, the characteristic of self-sufficiency of a village community, may be seen from the presence of different classes of artisans and personal servants intended to administer to the needs of the farmers.

*Historical evolution of Atgam as a village community* : A brief study of the history of the population of the village will enable us to understand its present composition better. Unfortunately, no old records are available to serve us as guides for constructing a systematic history of this village community. We had, therefore, inevitably to fall back upon the memory of the old people of the village for information. The history of this village, however faint, may be thus briefly told :

1 This group consists of family heads—who are products of mixed castes.
2 These communities are classed as Ujaliparaj in the Baroda Gazetteer; in view of the smallness of their number we do not propose to class them differently. The word 'Ujalivaran' is used when only high-class Hindus are distinguished from Kaliparaj.

The village traces its origin as far back as two hundred years. It is reported that it was founded by an Anavil Brahmin named Naranji Lala, the brother of an ancestor of Mr. Manibhai, the present Police Patel of the village. No exact date about its foundation can be given. The founder was originally a resident of Bulsar town where his descendants still own a house and some landed property. In those palmy days of the Anavil Desais of South Gujarat—when they were the practical rulers of this part, enjoying the monopoly of farming land revenue, this man is supposed to have taken a fancy to establish a new village. In his wanderings to select a suitable place he came to this part where the village is now situated to the eastern-most boundary of the Bulsar Taluka. Here he saw that there was a possibility of founding a village with the Kaliparaj, who abounded in the adjoining Dharampore territory, as the farming population. He, therefore, persuaded some of them to abandon that territory, and to come down and settle in (now) British Gujarat and form a new village. Enticed by the privilege offered to them of cultivating as much area as they liked, a group of Kaliparaj people migrated to this place. Thus was laid the foundation of Atgam about two centuries ago. In course of time, Naranji Lala persuaded, by offers of pieces of land, some artisans like carpenters and personal servants like barbers to settle down in the village for the comfort and service of the cultivators. Gradually a village police force consisting of Dheds was evolved and a Bhangi family was ushered in for serving the people as sweepers and as removers of carcasses. These people were, like the artisans and personal servants, given a status in the village by being granted pieces of land. The descendants of all these families still enjoy the usufruct of land originally given to them, some by paying a quit-rent and others on the payment of merely the local cess. It is said that not only were the members of the non-agricultural population of the village provided with a status in the social and economic life of the village, but that each

of them was also assured of an annual income in kind to be paid at the time of harvest by different farmers according to the latters' need for the services of the former. The vestige of this practice, once widely current, is still found in the payment in terms of paddy made by a few farmers to their barbers.

Slowly but surely the members of Anavil families began to increase. Originally, they together with the class of village artisans constituted the Ujaliparaj. As the fame of the improved economic condition of the Kaliparaj began to spread far and wide, a few Rajput families migrated from the north,[1] to enjoy a settled life. Similarly but with a different intention did the Banias[2] and the Parsis come to this village. The former hoped to get customers in their business of money-lending. The latter thought that there was a wide and permanent market for the liquor[3] they dealt in in this village of the Kaliparaj, well-known for their irresistable craving for intoxicating beverages. The Kolis, of course, originally formed a section of the Kaliparaj, but gradually they raised their standard of living, thanks to their contact with the fair races and are now regarded as members of the Ujaliparaj class. The Bharwads and Machhis migrated to this village later in its history. As the number of the Ujaliparaj Hindus went on increasing, Modh Brahmins were invited to stay in the village to serve them as priests and were granted Inam lands. Whence, why and when the Mahommedans came is involved in obscurity. There is only one Christian family. Its head immigrated to this place about 12 years back as a servant of the Church of England Missionary Society (Gujarat Division).

This, in brief, is the history of the village that we have

1 It may be noted that one of the intelligent Rajput residents of Segwa, an adjoining village, told us that he and his caste had run away from Patan in North Gujarat due to the oppression of their sowkars.

2 One of the Bania money-lenders gave us to understand that the Banias originally migrated about two hundred years ago from Marwar to Untdi, a village about 7 miles from Atgam and thence to this village.

3 This is supported by the fact that there is still extent a native furnace for manufacturing liquor in the compound of one of the Parsi families.

been able to gather and accounts for the heterogeneous character of its present population.

*Average size of the family and proportion of sexes:* Resuming our analysis of the present population, the marginal table shows the average size of the family and the proportion of women per 100 males.

| Name of the group | Average size of the family | Number of females per 100 males |
|---|---|---|
| Kaliparaj . . | 5·69 | 87 |
| Ujaliparaj . . | 5·21 | 95 |
| For the village as a whole . | 5·51 | 90 |

It is obvious that the average size of the Kaliparaj family is larger than that of the Ujaliparaj. For the village as a whole the average family consists of 5.51 members. Further there is an obvious deficiency of females in both the groups and therefore for the village as a whole.[1] It is too presumptuous to discuss from this meagre data whether this inequality of sexes is due to racial, climatic, geographical or social factors.[2]

## THE WORKING POPULATION

Of greater importance than the total population or the size of the family is the size of the working population—the real producers of the place. To ascertain what it is we have divided the total population into certain groups. The ages adopted as the lines of demarkation are not quite arbitrary. The working capacity of the individual is principally taken into account.

1 The following are the percentages of females to males: 92, 99, 100 and 82 for Bombay Presidency, British Gujarat, Surat District and Bulsar Taluka respectively. It is necessary to add that Surat is one of the most migratory districts of our Presidency and consequently, as many males stay out, the percentage of females to males is higher.

2 An interesting discussion of this subject is given in the Census Report of 1921 for the Bombay Presidency, pp. 102-108.

The following is the classification we have adopted :

| | | | |
|---|---|---|---|
| All male and female children under 1 | | | = infants. |
| All male children from | 1 | to 7 | = male children. |
| All female ,, ,, | 1 | to 6 | = female children. |
| ,, males ,, | 7 | to 15 | = boys. |
| ,, females ,, | 6 | to 15 | = girls. |
| ,, males ,, | 15 | to 55 | = male adults. |
| ,, females ,, | 15 | to 50 | = female adults. |
| ,, males above | 55 | | = old men. |
| ,, females ,, | 50 | | = old women. |

It is necessary to note that the average age at which a boy or a girl in this village is expected to shoulder the responsibilities of a family or household is 15, and hence we have adopted it as the mark of distinction between adults and non-adults. Distributed according to this classification, the Kaliparaj, the Ujaliparaj, and the total population for the village as a whole form themselves into different groups as under :

| | Kaliparaj | Ujaliparaj | Total |
|---|---|---|---|
| Male infants . . . . | 20 | 10 | 30 |
| Female infants . . . | 33 | 16 | 49 |
| Male children . . . . | 189 | 73 | 262 |
| Female children . . . | 138 | 48 | 186 |
| Boys . . . . . . . . | 200 | 79 | 279 |
| Girls . . . . . . . . | 164 | 67 | 231 |
| Male adults . . . . | 456 | 255 | 711 |
| Female adults . . . . | 400 | 253 | 653 |
| Old men . . . . . . | 37 | 33 | 70 |
| Old women . . . . . | 53 | 36 | 89 |
| Active workers . . . | 456 | 255 | 711 |
| Dependents . . . . | 1234 | 615 | 1849 |

Infants and children are certainly an addition to the number of mouths to be fed, and they cannot be expected

to do any work of a remunerative character. Boys and girls among the Ujaliparaj usually go to school; among the Kaliparaj and a few Koli families, they serve as herdsmen either to their own family or to those of their neighbours, and thus supplement the family income. Exceptions apart, a man above 55 does not generally retain strength to put forth constant, hard field work. A woman who bears children at an early age among the Ujaliparaj and who among the Kaliparaj faces frequent dangers of child-bearing in spite of adult marriage is apt to become incapable of active help to the family at a comparatively earlier age than a man. All males above 55 and all females above 50 are, therefore, classed as dependents. Of the adults, not all females go to work on the field. Though a majority of Kaliparaj women go to work on their own or others' fields, they do so only in certain seasons. Among the Ujaliparaj, only the Koli, Machhi, Bharwad and a few Mahommedan and Dhed women do field-work. No doubt, all women between the ages 15 to 50 render most valuable services to society as mothers or/and managers of the household. These services however do not add any measurable wealth to their families and hence are above monetary computation. The only steady, day to day, earners on fields or elsewhere are the males between the ages 15 and 55. Bearing these considerations in mind, it is obvious from the above table that there are only 22 and 29 per cents. of active workers among the Kaliparaj and the Ujaliparaj respectively. Relatively speaking, the latter are better situated. For the village as a whole the percentage is 28. In other words, 28 persons out of every 100 or 711 out of 2560 constitute what is called the working, active or effective population.

*Problems connected with the proportion of working population* : The importance of the proportion of working population to the total population is even greater than what it seems to be from the discussion hitherto made. There are two things in connection with this proportion

that require our serious consideration. In the first place, the proportion as it is at present must not be allowed to fall and must be maintained over a series of years at any cost. Secondly, all possible efforts must be made to increase in future the number of adult workers or at least to increase their ability to secure livelihood for the total population. A decrease in the number of working adult population may be due either to emigration of adult workers or to deaths. The increase in their number may be due directly to immigration of adult workers or more usually to boys coming of age. Thus the increase will vary with the death-rates among boys and girls, children and infants. It will also ultimately be affected by the inflow of new population or by the birth-rate. The question of increasing the ability or effectiveness of the existing number of earners involves a consideration of the problems of sanitation and health as they affect the average expectation of life. Thus this seemingly simple topic of the proportion of working population raises fundamental issues like the birth-rate and death-rate, immigration and emigration, average expectation of life and others. Having considered the proportion of the effective population to the total we shall now proceed to discuss the factor of birth-rate and death-rate and the factor of migration as they affect the total population as well as the proportion of effective population. We shall first examine what part these factors played in the history of the population of this village.

*Historical view of the population of the village* : The following are the figures of population[1] of Atgam at different dates :

1 The population in 1926-27 was counted by the author; the figures for the other years are those of the Official Census.

| Year | Total population | Percentage, + increase, or—decrease. |
|---|---|---|
| 1890-1 | 2155 | |
| 1900-1 | 2087 | − 3·15 on the population of 1891. |
| 1910-11 | 2317 | + 11·02 ,, ,, ,, ,, 1901. |
| 1921-22 | 2097 | − 9·49 ,, ,, ,, ,, 1911. |
| 1926-27 | 2560 | + 22·07 ,, ,, ,, ,, 1921. or + 18·8 ,, ,, ,, ,, 1891. |

The tendencies evident from the foregoing table are :

(i) Twice in the history of the village there was a decrease in the total population. It occurred first in the decade 1890-1900 and subsequently in the decade 1911-1921.

(ii) The quinquennium ending with the year of enquiry reveals an abnormal increase of 22.07 per cent. in the population over that of 1901.

(iii) In spite of variations, the net increase in the size of the population during the last 37 years is 18.8 per cent.

*Causes of variations in the size of the population* : The first question is, what are the causes of these variations in the size of the population at different censuses? An enquiry into this aspect throws considerable light on the part played by birth and death rates on the one hand and migration on the other.

*Birth and Death rates* : We shall first consider the role played by the former. The inadequacy and imperfectness of data need not be too often repeated. Luckily in this case, we could lay our hands on registers of births and deaths, however indifferently written, from 1892. We believe that the statistics of births and deaths since 1914 are fairly accurate. The following table based on statistics of births and deaths, gives in a summarised form the total number of births and deaths that occurred since 1892 up to date :

| Years | Births | Deaths | Net Increase |
|---|---|---|---|
| 1892-1900 | 766 | 470 | 296 |
| 1901-1910 | 556 | 283 | 273 |
| 1911-1920 | 777 | 664 | 113 |
| 1921-1926 | 451 | 315 | 136 |

Thus there was a net increase during every decade. This, then, fails to explain the diminution in the size of the total population that occurred in the first and third decades.

*Emigration* : The only other factor that reduces the size of a population is emigration. On making a minute enquiry about emigration we found interesting information. In 1900-01—a disastrous famine year—when the census was taken, a good many people usually residing in the village had been out in search of employment. This explains why the figure of the size of the population in this year seems to have dwindled from that of the previous census. The diminution in the third decade was also due to a similar reason as we shall presently see. During the third decade however there was an additional cause that materially affected the size of the population. It was the outbreak of influenza and famine in 1918-19 which took a heavy toll of life in this village. This is obvious from the relatively small net increase in this decade.

The important role played by the factor of emigration is again obvious when we consider why there was such an abnormal increase in the population of 1926-27 over that of 1921. There are two circumstances which explain this apparent abnormality.

(i) The census figure for 1921 is the result of a *de facto* census, that is to say, only those people who were found on the census night in the village were regarded as its population. Our figure is the result of a *de jure* census, that is, we have regarded as its population all those who legally belong to the village, irrespective of the consideration whether they were within or without the village at the time when we took the census. This meant a great difference between the two figures because of

(ii) the fact that about 200 to 300 persons belonging to this village, as we were informed by one of the then census enumerators had gone out of the village in search of employment.

*Real increase in the size of the population from* 1891 : Finally, has the population of the village really increased by 18.8 per cent. since 1891 as shown by the table of population given above? The answer is in the negative. Like the census of 1921, the 1891 census was also a *de facto* one. If we deduct the number of emigrants from the figure of population of the census we took we get the figure 2,342. If this can be regarded as the *de facto* population, the net increase dwindles from 18.8 to 8.6 per cent. Thus the real increase during the last 37 years is only of 187 persons or 8.6 per cent. on the population of 1891. In other words, on an average there was an addition of 5 persons per year during this period. This low rate of increase is due to a high birth-rate accompanied by a high death-rate.

*The part played by the factor of emigration* : Pausing for a moment and reviewing this period of 37 years, we clearly see that emigration has throughout been a powerful factor in moulding the size of the population. In this respect our village is typical of the Surat District which is regarded as one of the most migratory districts in our Presidency.[1]

Having thus examined the part played by the factor of birth and death rates and the factor of migration, we shall pass on to a detailed consideration of each.

## BIRTH-RATE AND DEATH-RATE

The following are the statistics of births and deaths that occurred in the village during the last ten years :

1 This is shown on p. 116, paragraph 330, Census of India, 1921, Vol. XIII, Part I, Bombay Presidency.

| YEAR | BIRTHS | | | Births per mille | DEATHS | | | Deaths per mille |
|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | | Male | Female | Total | |
| 1917-18 | 44 | 38 | 82 | 35·4 | 37 | 28 | 65 | 28 |
| 1918-19 | 44 | 37 | 81 | 34·9 | 70 | 98 | 168 | 72·5 |
| 1919-20 | 34 | 33 | 67 | 28·9 | 40 | 34 | 74 | 31·9 |
| 1920-21 | 38 | 46 | 84 | 36·2 | 35 | 40 | 75 | 32·4 |
| 1921-22 | 46 | 31 | 77 | 36·8 | 30 | 26 | 56 | 26·7 |
| 1922-23 | 48 | 49 | 97 | 46·3 | 43 | 26 | 69 | 32·9 |
| 1923-24 | 41 | 33 | 74 | 35·3 | 30 | 27 | 57 | 27·6 |
| 1924-25 | 50 | 41 | 91 | 43·4 | 31 | 27 | 58 | 27·6 |
| 1925-26 | 61 | 51 | 112 | 53·4 | 26 | 30 | 56 | 35·8 |
| 1926-27 | 30 | 40 | 70 | 33·3 | 33 | 42 | 75 | 35·8 |
| Total | 436 | 399 | 835 | 39·8 | 375 | 378 | 753 | 35·9 |

Thus the average birth-rate and the death-rate of Atgam are 39.8 and 35.9 respectively. In spite of variations these averages of the last ten years do not show much divergence from those of British Gujarat, which in 1920 were 36 and 34 respectively. Obviously it will be of great interest to ascertain whether the causes and the effects of these factors of birth and death-rate are the same here as elsewhere. We shall first analyse the causes and effects of a high birth-rate.

*Causes and Effects of a high birth-rate* : A minute observation of the economic and social life as well as the social customs of the Kaliparaj and the Ujaliparaj leads us to conclude that the following are most probably the causes of a high birth-rate among them. So far as the Kaliparaj are concerned, the causes are as under :

(i) prolificness of the aboriginals,[1]

(ii) the absence of early marriage among them. (This is strange at first sight. But it is necessary to remember that a mature girl when she becomes a wife can stand

1 The following are the statistics of birth for the Kaliparaj in 1926-27. Males 19, Females 27. Total 46.
Out of 70 births 46 occurred among the Kaliparaj.

more frequent child-bearing than an immature one. The first characteristic combined with this accounts for a high birth-rate.)

(iii) The frequency of widow-remarriage.

(iv) Comparative absence of cerebral development.

Among the Ujaliparaj, with the exception of non-Hindus, the cause seems to be early marriage which results in a woman bearing children at a relatively early age. Speaking comparatively, the former are more fertile than the latter as shown in the marginal table. It is clear that the number of children per family of the dark races is higher than that of the fair races. Add to this the fact, we mentioned elsewhere, that the average size of the family in the former is 5.69 and thus greater than that in the latter which is 5.21.

| | No. of children per family[1] |
|---|---|
| Kaliparaj . . . . | 2·48 |
| Ujaliparaj . . . | 1·75 |
| Village as a whole . | 2·23 |

Thus here is an instance where greater fertility or fecundity is associated with primitive methods of living. This forcibly brings home to our mind the significance of the remark that "Our high birth-rate is, therefore, an indication of the primitive state of our society and an evidence of an unsophisticated type."[2]

*High birth-rate and longevity of life* : This comparatively greater fecundity affects the longevity among both males and females. This is obvious from the relatively smaller proportion of old folks among the dark than among the fair races.[3] The relation between fecundity and longevity is, however, more forcibly established by the following table. We have correlated the percentages of the children under 10 to the women of child-bearing age among both classes with the number of old women found in them.

1 'Children' here means non-adults, that is, all males and females below 15.
[2] The Population Problem in India, by Wattal, p. 17.
3 Vide table showing the classification of population.

| Name of the Class | No. of children below 10 per 100 women of child-bearing age 1 | Total No. of Old Women |
|---|---|---|
| Kaliparaj . . . . . . . | 172 | 53 |
| Ujaliparaj . . . . . . . | 141 | 89 |

The table makes it evident that the higher the ratio of children under 10 to females of child-bearing age, the lesser the number of women who survive the maximum limit of that age. Thus the dangers of frequent child-bearing are obvious.

*Average Expectation of life* : Unfortunately, what is true of the Kaliparaj seems to be true of the village as a whole. In the latter case too, the high birth-rate has meant a low average expectation of life. According to Dr. Farr's formula,[2] the average expectation of life for this village comes to 26.9 years.

*Main features and Causes of a high death-rate* : Let us now consider the causes of a high death-rate. The most important feature of this high death-rate is a high rate of infant mortality. Taking the last five years when there was neither famine nor plague and examining the figures carefully, we get the following results :

| Year | Total No. of Births | Total No. of Infantile Deaths | Infantile Deaths per mille |
|---|---|---|---|
| 1922 | 97 | 13 | 144·3 |
| 1923 | 74 | 12 | 162·2 |
| 1924 | 91 | 21 | 230·8 |
| 1925 | 112 | 14 | 125 |
| 1926 | 70 | 22 | 314·3 |
| *Total* | 444 | 82 | 184·7 |

1 This age period has been assumed to be 15—40 years.
2 Dr. Farr's formula for determining the average expectation of life is:
Average expectation of life $\left(\frac{2}{3}\times\frac{1}{d}\right)+\left(\frac{1}{3}\times\frac{1}{b}\right)$ .
where d = death-rate and b = birth-rate per unit of population; referred to in Newsholme's Vital Statistics p. 301, (1899 Edition).

In spite of variations it is obvious that on an average for the last five years out of every 1000 children born 185 died within the first year of their birth. The cause—common to both the Kaliparaj and the Ujaliparaj—is a rapid succession of births of children lacking vitality and consequently living short lives. Among other causes of a high death-rate the following may be mentioned so far as the Kaliparaj are concerned :

(i) want of cleanliness and insanitary habits, e.g., absence of a habit of taking daily bath, indifference in wearing clothes and drinking pure water and the peculiar construction of their houses ;[1]

(ii) low quality of food and irregularity in taking the same, especially when adults go out to urban areas in search of employment, and

(iii) drink.

So far as the Ujaliparaj are concerned, a special cause is the custom of neglecting female children. Greater care is taken in bringing up male children whereas a female child is looked upon as a burden.

All this discussion leads irresistably to the conclusion that the health of the people of the village is far from satisfactory. This explains the fact why an abnormal number succumbed during the influenza epidemic of 1918. It also accounts for the frequent attacks of malaria which we saw during the course of our enquiries.

## MIGRATION

We shall now turn our attention to the other factor of migration. This has two aspects : immigration and emigration.

*Immigration* : So far as immigration is concerned, within the last 30 years, as we gathered from local sources, about 57 families immigrated to this village. Some of

1 The peculiarity of their houses is this. There is generally no barrier between the sleeping room and stable. Consequently the vermin, created in the dirt of the latter, unfailingly affect their health.

them originally came in search of work ; some were invited by their relatives staying here, and one, as already noted, the head of the Christian family, came for missionary work.

*Emigration* : Little historical evidence is available for tracing the history of emigration. During our enquiries, however, we came across two cases of emigrants which give us a faint impression of the time from which the isolation of this village has been affected by emigration. In one case it is reported that a Mahommedan went on foot to Calcutta about seventy years back in search of service. In the other, a Dhed went to Bombay about fifty years ago for a similar purpose. Of recent times we could get a few instances of Banias and Suthars (carpenters) migrating to some city or town, the former to avoid the increasing competition among their fellow-money-lenders, the latter to make a better living. The census we took in 1927 gives us much more interesting information about this fact of emigration. 218 persons, including 182 males and only 36 females, were found to be out of the village at the time when we took the census in the winter of 1927. Of these emigrants some are semi-permanent, like the Dheds who serve as domestic servants to Europeans in Bombay ; or the male members of the Bhangi family who stay outside and serve as sweepers of roads on a regular salary ; or again like the two Banias, one of whom stays at Bombay and is a sub-broker in the Share Bazaar and another has set up a grocer's shop in Bulsar. Some are temporary migrants like the Kaliparaj who go out in the off season to serve as labourers at Kalyan, Andheri, Dharsana, Surat or Bulsar. A few Koli and Mahommedan youths are employed as teachers in the vernacular schools in villages in the vicinity of Atgam. They usually stay for week-days on the spot and return home on Sundays. These are classed as temporary emigrants. Of the Kolis, however, one is at Bombay serving as an accountant in a Shethia's pedhi (merchant's shop). Of

the Mahommedans, two are employed in railway service, two are working as clerks to the contractors of forests in the jungles of the Dangs to the east of Atgam, and one is serving in the Income-tax Department in Bombay. Artisans like Mochis (shoe-makers), Kumbhars (potters) and Khalpas (tanners) migrate to towns like Navsari and Billimora or Bulsar, mostly for supplementing their meagre earnings at home, but at times for learning a new craft (as was found to be the case with some of the Kumbhar emigrants who had gone to Surat to learn carpentry.) There is yet one more purpose for which persons have emigrated from this village. That is study. Two Anavil boys are studying English, one at Bulsar and another at Viramgam in the Ahmedabad District. Three boys from a Brahmin family are out, of whom one is prosecuting his studies at the Engineering College at Karachi, and two are studying Sanskrit in Chaklasi, a village near Anand in the Kaira District. It is interesting to add that one of the Kaliparaj emigrants had gone out to study in a Kaliparaj Boarding School at Khergam, and a girl from the Christian family had been to Borsad for prosecuting her studies in Gujarati, when we made our enquiries.

The *number of places to which all these persons emigrated* comes to about forty. The most prominent of these are Kalyan and Bulsar. Evidently a major portion of the emigrants go out to supplement their meagre returns from land.

## MAIN CONCLUSIONS

We have thus seen that—

(1) Atgam is a representative village community of South Gujarat and contains a heterogeneous population.

(2) Of the total population, the proportion of working population is relatively small, being 28 per cent.

(3) The village shows a high birth-rate.

(4) It has also a high death-rate, part of which is due to high infant mortality which shows low vitality.

(5) The average expectation of life is low.

(6) A substantial section of the population emigrates to supplement their meagre returns from land.

Does all this scent of the operation of the Law of Malthus? We shall be in a position to answer this question when we have finished our study of the production of this village. Having studied the general characteristics of the people of the village, we shall now turn our attention to a few important social aspects of life in Atgam.

CHAPTER—IV

# SOME ASPECTS OF LIFE IN THE VILLAGE.

## INTRODUCTORY REMARKS

Human life is an organic whole. There are no such divisions as economic and social in actual life. We, however, make such divisions only with a view to make our study precise and accurate by selecting one of its multifarious aspects. While doing this we should not forget the fact of the fundamental unity of life. The main theme of this work is to study the economic life of the people of Atgam. The economic life of any group of people is sure to be affected by some aspects of its social life—like the marriage and death ceremonies which involve expenditure ; the religious beliefs of the people which materially influence the state of their mind and make them pessimistic or optimistic in their outlook on life ; education, the presence or absence of which affects production, and similar other aspects. The object of this chapter is to follow up the preceding one, which principally deals with the people of Atgam in a general way, by studying a few aspects of their social life which have an important bearing on their economic life. In order to appreciate the significance of the effects of social aspects on economic life, we shall first describe the routine of daily life in the village and then consider (1) education (2) religious beliefs and festivals, (3) civil condition, and (4) social customs—like marriage, remarriage and death ceremony.

## THE ROUTINE OF DAILY LIFE

The average daily life led by an Atgam dweller is monotonous. It may appear almost mechanical to a Bombayite with his multifarious activities amidst the incessant

bustle of the city. Yet it has to be described lest he may have no idea of the reality.

Early in the morning the peasant goes to his farm driving a pair of bullocks or with a scythe in his hand. He works there till about 9 o'clock, and returns home to take the morning meal, consisting of loaves of Nagli flour and a meagre quantity of pulse or vegetable, or at times some pickles. He goes back to his field and works there till half past twelve or one. Once again he returns home,[1] takes his mid-day meal and rests himself for a while. At about three o'clock one finds his dark, perplexing figure in the field busily moving about or working with tools and implements similar to those his forefathers used generations ago. As the shadows of the night gather, he 'homeward plods his weary way' whistling and driving a pair of tired-looking bullocks. If he is a Kaliparaj cultivator he often goes from the field direct to the toddywala's shop or booth, drinks as much toddy as his means allow or his credit commands, and returns home reeling and singing obscene songs. He takes his supper if he can, or immediately drops down to sleep on the ground forgetting the toils and troubles of his monotonous life. The average Ujaliparaj cultivator also visits the toddy shop or liquor-shop but drinks moderately.[2] The next day dawns with the same dull routine of life. Days, months and years roll on without any break in the deadening monotony of his life. There are no play-grounds and clubs for him to attend. Nor are there libraries which he may occasionally visit to refresh his mind, receive new ideas and ennoble his life. Unfortunately, in most cases, he is illiterate. If he knew the three 'R's, he has forgotten them for want of practice.

If there are any changes in this uniformity they are

1 It is necessary to remember that the construction of this village is such that a farmer can go from his field to his house and from his house back to his field frequently.

2 This whole description does not apply in all its details to all, but to a majority of working cultivators who form the bulk of the village populace.

dictated by the time and nature of his work. For him the year is divided into periods of hard work, light work and idleness in turn. He is very busy in June, July and for a few days in August. In June he is busy tilling his fields and sowing seeds. July is the time for transplantation of paddy and Nagli plants from their nursery beds to other ones reserved for them. For a few days in August he is occupied with weeding the crops. September is a period of little work for him. This is the time when the average Kaliparaj cultivator frequently enjoys festivals. Some families gather together for feasts consisting mainly of meat, and fish caught from the streams, which abound in them at this time of the year. Liquor flows in plenty on such occasions, either purchased from the licensee of liquor or secretely distilled at home. October again, is a busy month. The farmer reaps his paddy plants, bundles them and carries them home. He tills the soil and sows wal (beans) which is a usual second crop. He cuts nagli-sheaves and takes them home. In November he is busy separating paddy and nagli grains from straw and cutting grass to feed his cattle during the off season. His work is over by the beginning of December. In this and the following months he occasionally takes a job as a farm labourer under some big land-owner or as a worker on the Local Board roads. In some cases where the second crop of wal is not sown, the small peasant proprietor repays the corn borrowed by his family from his sowkar when he was away and hastens to some industrial area like Bulsar or even Kalyan (on the G. I. P. Railway). Here he receives cash wages, board and a small quantity of liquor. If he remains in the village and has a cart, he earns a few rupees, by plying it for hire, with which to purchase clothes and other miscellaneous things. February and March are busy months. During these months he reaps his wal and finds opportunity to supplement his meagre earnings by working as a farm labourer. This is the time when wal, castor-seeds and cotton fibres are harvested.

Summer is the time for social festivities and religious relaxations. Toddy can be had in plenty in this season. Occasional earnings of a few coppers by working as a farm labourer on the farm of some cultivator growing sugarcane, or as a cooli to assist mango-dealers, are invested (or wasted) in purchasing the license of tapping toddy-trees in his farm, or paying frequent visits to the toddy-shop. If he extracts toddy at home, he drinks it till he is stupefied. If he goes to the toddy-shop, he carouses in the company of friends ; this is a place where altercations and affrays are frequent.

Marriages generally take place in summer. They interrupt his daily routine of life. For some days in this season he has to attend them and go in processions to other villages. It is in this period that guests often come to visit his house as he has yet some corn—especially wal—recently reaped from his field. They are served with loaves of nagli or jowar together with sufficient wal, toddy and mutton or fish. Days thus pass away ; June returns with its usual demand for hard field-work and the round of one year is over.

This is a picture of the "noiseless tenor" of life led by an average Atgam dweller. He works practically for six months during the year, partly on his own field and partly on those of others. The remaining six months form his period of rest or idleness.

A substantial minority of cultivators, however, both Kaliparaj and Ujaliparaj, who grow sugarcane and pursue diversified farming, are occupied with work for more than eight months[1] during the year.

## (1) EDUCATION

The humdrum of life which an average farmer of Atgam leads may be attributed to his lack of education. Among the Kaliparaj who constitute the bulk of its population, only 83 out of 1690 persons or 4·8 per cent. are literate.

1 An annual time-table of work for such a cultivator owning 15 acres of land is given in appendix IV.

The majority of these literates may be called so by courtesy since they only know how to sign their names. Not a single female among them was found to be literate.

The percentage of literacy for the village as a whole is, however, comparatively high. Out of 2560 persons 358, of whom 311 are males and 47 females, or 13.9 per cent. are literate. The following table shows correctly the level of literacy among the main classes :

| | Literate in English | Studying English | Literate in Gujarati | | Studying Gujarati | | Literate | | | Percentage on total Population |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Males | Females | Males | Females | Males | Females | Total | |
| Kaliparaj . . . | — | — | 41 | — | 32 | — | 83 | — | 83 | 4·8 |
| Ujaliparaj Hindus | 3 | 4 | 129 | 16 | 37 | 16 | 173 | 32 | 205 | 28 |
| Non-Hindus . . | 4 | 4 | 36 | 13 | 11 | 2 | 55 | 15 | 70 | 50·7 |
| Total for the village . . . | 7 | 8 | 206 | 29 | 80 | 18 | 311 | 47 | 358 | 13·9 |

Though the general level of literacy is low as compared with villages in the West, it is relatively high so far as villages[1] in our country are concerned. It is, however, obvious that the general percentage for the village is high because the high percentage of literacy prevalent among the Ujaliparaj enters into its making. The real bulk of the population, the Kaliparaj, is mostly illiterate.

The high level of literacy for the village as a whole may, however, be taken as quite natural when it is remembered that this village has a vernacular school for

1 Cf. in Roth Khurd, a village in the Konkan studied by Mr. Ranade, only three out of a population of 346 were found to be literate. Even these 3 belonged to the wine-merchant's family. Vide A Social and Economic Survey of a Konkan village, Ranade.

In Bairampur, a village in the Punjab, Mr. Bhalla found only 2 per cent. of the population to be literate. Vide An Economic Survey of Bairampur, Ram Lall Bhalla.

Dr. Lucas in his study of Kabirpur village in the same province, found 17 out of 283 or 6 per cent. to be literate. Vide The Economic Life of a Punjab Village, Lucas.

the last 57 years. During the last 15 years about 37 students from this school have passed the Vernacular School Final Examination, which qualifies a student for the Teachers' profession in vernacular schools. The majority of them are Mahommedans and Kolis who now serve as teachers in villages in the neighbourhood of Atgam. A few have passed the Matriculation Examination and are serving, as already stated elsewhere, two in the B. B. and C. I. Railway and one in the Income-tax Department in Bombay.

While we approve of this high level of literacy, we cannot ignore its saddening effect, namely, the exodus of the intellect from the village to the town. A mere literary education has thus meant no advantage to the village itself. It has virtually spelled a net deduction from the number of farmhands or farm-managers. This does not mean that villagers should be kept in ignorance. What is really wanted is indeed more education, but it should be given an agricultural bias. The education in the three 'R's must be made only a first stage in the scheme of rural education. The higher stages must be reserved for imparting a knowledge of agricultural technique and agricultural economics.

Whether even this type of education with an agricultural bias should be made compulsory or not is another important issue which we may briefly dispose of here. On being asked whether compulsory education for boys and girls would be welcomed by them, many of the Kaliparaj family-heads gave us to understand that it was not desirable, for they could not afford to send all their children to school. One child, they said, at least, must be kept at home to take the cattle of the family out to graze. A deeper consideration is sure to convince one that this argument is not quite as irrational as it seems to be. The importance of cattle in the economic life of an Indian villager cannot be overrated. On the other hand, the interests of the minors cannot be ignored. The only solution in this case seems to lie in the introduction of the system

of quarterly courses in useful subjects which may be taught in the rainy-season when the land is covered with plenty of green grass and cattle need no special supervision during the major part of the day.

## (2) RELIGIOUS BELIEFS AND FESTIVALS

It is obviously impossible to give a full account of the religious beliefs and festivals of all the castes and creeds that are found in the village under study. We, therefore, propose to note only a few salient points about the religious beliefs and festivals of the Kaliparaj and the Ujaliparaj Hindus, who together form about 95 per cent. of the total population of the village.

*Religious Beliefs of the Kaliparaj* : The Kaliparaj believe in ghosts. It is a usual custom among them to set up a wooden image called 'Khatru' to the memory of a dead relative. This they occasionally worship. On every festival when they prepare delicious food (according to their notion), they, first of all, offer a part thereof to this ghost. The ghost is looked upon by them as a Supernatural power that protects them from all sorts of dangers.

The Kaliparaj of this place often go to Malwada, a village to the east of Atgam about 10 miles away where they worship the image of a goddess locally known as Malwadi-Mata. Occasionally some of them go to Motifavel, a place near Dharampore about 10 miles to the east of the village under study, for worshipping Samal Dev. It is interesting to note that though a god called Gusmai[1] is regarded as their principal god in written literature available about them, the Kaliparaj of this place know nothing about him.

*Religious Festivals of the Kaliparaj* : The leading festivals observed by the Kaliparaj are :

1 The image of this god is said to be in the cave of a hill near the hot springs of Unai, a place about 25 miles to the North of Atgam.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (i) | Diwāso | which | generally | falls | in | June or July. | |
| (ii) | Vāg Bāras | ,, | ,, | ,, | ,, | October or November. | |
| (iii) | Diwāli | ,, | ,, | ,, | ,, | ,, | ,, |
| (iv) | Holi | ,, | ,, | ,, | ,, | February or March. | |

On these days and on a few other Sundays and Tuesdays, most of these people visit their gods in large numbers and make offerings to them. These offerings generally consists of a goat or a hen, a cocoanut, a lamp fed with ghee and a flower wreath.

Dublas, a section of the Kaliparaj, however, enjoy a few more holidays like the Mata-Ashtami which falls in September or October, Balev which falls in July or August and Makar Sankrant which falls in January. On some of these days they play what is locally called "Gherias." They tie a belt of gingling bells round their waist, hold a stick in their hands and dance from place to place. On these occasions they collect gifts from the people and spend the money thus collected in drinking toddy.

*Religious Beliefs of the Ujaliparaj Hindus:*

The religious beliefs of the numerous castes that come under the term Ujaliparaj 'Hindus' vary with the different tenets they follow. A majority of them are Ramanuji Vaishnvas. Of the rest some are Shaivites and some devotees of Shakti. A few of them are found to have no religion whatever.

The most noteworthy feature, however, about their religious life is this. There are three Bhajan-mandlies—bands of men who gather together and sing devotional sacred hymns to the accompaniment of cymbals. One of these Bhajan-mandlies consists of members of different castes like Kolis, Darjis, Valands and a few others. The second was recently started and consists of young intelligent Kolis many of whom are serving as teachers in the vernacular schools in the neighbouring villages. The third consists again of Kolis staying in one of the farthest 'falias' of the village. These Bhajan-mandlies show the last

vestiges of that spirit of co-operation which was once a marked feature of rural communities. It is unfortunate, however, that a majority of the members of these Mandlies believe that they cannot sing unless they 'whet' their throat with liquor or toddy. In spite of this sad feature, we believe that looking to the reception accorded to these bands of songsters, if inspired with fire for reform and freed from love of intoxicating drinks, they can be very powerful social agencies for remoulding the life and general outlook of the people at large in this village.

*Religious Festivals of the Ujaliparaj Hindus:*

Almost all festivals mentioned with regard to the Kaliparaj are common to this class. There are a few more which are too well known to be noted.

### (3) CIVIL CONDITION

The following table embodies the results of the census of civil condition of the people taken by us in 1927.

| | Unmarried | | Married[1] | | Widowed | |
|---|---|---|---|---|---|---|
| | Males | Females | Males | Females | Males | Females |
| Kaliparaj . . | 468 | 337 | 393 | 392 | 42 | 58 |
| Ujaliparaj . . | 198 | 124 | 217 | 226 | 32 | 73 |
| Total for the village . . | 666 | 461 | 610 | 618 | 74 | 131 |

It is difficult to offer any remark on the civil condition of the people in the absense of similar figures for the last census. From a minute study of the family schedules we collected in our enquiry we, however, find that child-marriages, especially of girls, are rare among the Kaliparaj and the non-Hindus, though they are frequent

1 The disparity between married males and females is due in some cases to the fact that a wife has run away, in others due to the fact that girls though married are yet a burden to their parents from an economic standpoint as they stay with them.

among the Ujaliparaj Hindus. We, however, came across two cases among the Kaliparaj where girls under 13 were married. In the case of the lower castes of the Ujaliparaj Hindus we found about 17 cases of marriages of girls under 13.

## (4) SOCIAL CUSTOMS

The marriageable age among the Kaliparaj is usually 18 to 30 in the case of boys and about 15 in the case of girls. However, of late a tendency towards early marriages is discerned in some cases. This is an unfortunate effect of the desire to imitate the practice of the Ujaliparaj in the hope of attaining their status.

Among the Ujalivaran (Ujaliparaj Hindus) the marriageable age for boys and girls varies with each caste. However, as a rule, girls are married between 9 and 13, and boys between 14 and 18. Late marriage is a prominent characteristic of non-Hindus, that is, of Mahommedans, Parsis, and Christians. There is no objection to the re-marriage of widowers ; but widow remarriage is not allowed among Banias and Brahmins.

Polygamy is rare in all the social groups. Even among the Kaliparaj we could discern only one or two cases where it had taken place. Polyandry is conspicuous by its absence. No one tolerates the idea of polyandry.

The dead are mostly burnt by the Kaliparaj and the Ujalivaran. They are buried by the non-Hindus except the Jains who burn them. Performance of death ceremony is compulsory among the Kaliparaj. One of the Dubla Patels told us that they would physically beat a man into performing such a ceremony. Among the Ujalivaran and non-Hindus, there is no such compulsion but spending a large sum on obsequies and dinners is looked upon by them as a sign of the high status of a family.

These are a few important social customs obtaining among different communities in this village. Details of

CHAPTER—V

# SOME ASPECTS OF AGRICULTURAL LIFE AND PRACTICE.

## INTRODUCTORY REMARKS

Land has been the basis of life in village communities in India as elsewhere. Though artisans, personal servants and village police pursued avocations other than agriculture in earlier days, they were closely connected with land which was offered to them as an inducement to stay in the village and administer to the needs of the farming population.

Land is still the basis of village-life, however weak it has grown through the passage of time and through the operation of different influences. Wander where he may in search of employment in some industrial area or in some city, being attracted by the glitter of its life, the villager goes back at certain intervals to his village where he owns a piece of land. In this respect, Atgam makes a fascinating study. We have already seen how, a good number of persons annually emigrate from this village, in search of service in the off season and come back home as June returns to till their tiny plots of land and reap a meagre crop. We now propose to study how and to what extent these emigrants as well as the total population of the village are associated with land as a source of income. In other words, the theme of this chapter is to study agriculture which, to the people, is either a principal or a subsidiary source of income. We shall first study the extent of the part played by agriculture in the life of the village and subsequently examine a few salient features of agricultural practice of the people.

## THE EXTENT OF AGRICULTURAL WORK

An analysis of the different family-schedules yields the following results regarding agriculture as a source of income to the people :

| | Number | Percentage[1] on the total number of families |
|---|---|---|
| I. Families having agriculture as the only source of income . . . . | 14 | 3 |
| II. Families having agriculture as the principal source of income . . . | 235 | 51 |
| III. Families having agriculture as a subsidiary source of income . . . | 153 | 33 |
| IV. Families indirectly deriving income from land like field-labourers, Halis[2] and permanent servants[3] | 50 | 11 |
| V. Families following occupations not connected with agriculture . . | 9 | 2 |
| *Total* . | 461 | 100 |

It is obvious that out of 461 families residing in the village, only 9 or about 2 per cent. are not connected with agriculture. The sources of income to these nine families are shown below :

| Sources of income | Number of families with the specified source of income |
|---|---|
| Labour on Local Board roads . . . . . | 1 |
| Domestic service in Bombay . . . . . . | 1 |
| ,, ,, ,, Billimora . . . . . . | 1 |
| Permanent service at a potter's . . . . . | 1 |
| Manual labour at Kalyan . . . . . . . . | 1 |
| ,, ,, ,, Bulsar . . . . . . . . | 2 |
| Goldsmith's work . . . . . . . . . . | 1 |
| Service of the Protestant Church of England | 1 |
| *Total* . | 9 |

1 Decimals are omitted in calculating these percentages.
2 A 'Hali' means a labourer who has mortgaged his labour to a farmer for a loan he borrowed from him for celebrating his own marriage.
3 This phrase means 'a field-labourer who sticks to one farmer for getting employment.'

Apart from these nine families, we find that there are 50, which indirectly derive their income from agriculture. As against this, the number of families which are associated with agriculture directly is 402. The following is the distribution of these 402 families which are so intimately connected with the land :

| | Number of families falling in the specified group | Percentage on 402 families |
|---|---|---|
| 1. Rent-receivers . . . . . . . . | 26 | 6·5 |
| 2. Owners cultivating part of their land and letting the rest. . . | 22 | |
| 3. Owners cultivating part of their land, letting the rest and leasing others' land (nearer their fields) . | 3 | 78·1 |
| 4. Owners cultivating their own land. | 116 | |
| 5. Owners cultivating their own land and leasing extra land as small tenants . . . . . . . . . | 173 | |
| 6. Mere tenants . . . . . . . . | 62 | 15·4 |
| *Total* . | 402 | 100. |

The above classification makes it quite clear at a glance that out of 402 families connected with land, 314 or about 78 per cent. are peasant-proprietors. Thus the problem of agricultural production in Atgam is neither the problem of rent-receiving absentee landlords nor of the landless tenants but principally that of peasant-proprietors. No doubt, a few of these peasant-proprietors lease their surplus land and act only as managers of their farms ; but, after all, they cannot be classed either as mere rent-receivers or as tenants.

Keeping this main fact about the existence of a large number of peasant-proprietors in view, we shall pass on to the discussion of a few salient features of agricultural practice. This discussion is based on our investigations, supplemented by information available in Government records.

## SALIENT FEATURES OF AGRICULTURAL PRACTICE IN ATGAM

We propose to discuss under this heading the following features :

(1) Rotation of crops,
(2) Mixed cropping,
(3) Use of manures,
(4) Quality of cultivation,
(5) Fencing,
(6) Seed-preservation,
(7) Introduction of new crops,
(8) Economy and leakage.

(1) *Rotation of crops* : Rotation of crops means growing of different crops on the same piece of land one after another from year to year. This is done with a view to avoid exhaustion of the soil. An examination of the crops entered for the last five years in the present crop register[1] of the village in most cases did not show any regular order. However, as gathered from local sources of information and personal inspection, we find that paddy, a Kharif or monsoon crop, and wal, a Rabi or winter crop, are frequently and widely grown in succession for a number of years. Occasionally intelligent farmers, who own sufficiently large fields and who manure them well every year, replace this paddy-wal crop by sugarcane every fifth or sixth year. In the generality of cases sugarcane is rotated at intervals of ten years. This is true of Kyari or rice-land. With regard to Jarayat or dry-crop land, a large portion of it is kept reserved for cutting green grass or hay or is used as pasture. On this land, however, diligent farmers raise Kodra at intervals of eight to ten years. Some make a more profitable use of this kind of soil by growing Kodra one year and following it up with Diveli or castor-seed next year ; Kodra recurs in the third year and subsequently the field is kept fallow for about five to ten years.

1 Crop Registers are renewed quinquennially.

In some cases, people have learnt by practice to alternate an ordinary crop with a leguminous crop. We have already seen above how the paddy crop which removes [1] considerable plant-food from the soil is alternated with wal, a leguminous crop. Wal, it may be noted, replenishes the soil by its ability to take nitrogen—an important plant-food—from the air by means of the bacteria in the nodules formed on its roots and renders the field fit for raising paddy next year. Similar is the action of castor-seed, a leguminous crop, when it succeeds Kodra which is looked upon by all farmers here as one of the most exhausting crops. Lang, watana and gram are other leguminous crops which are grown instead of wal to succeed paddy. Gram, however, is generally grown in the bed of tanks and not in the rice-plot, as it removes much plant-food from the soil.

(2) *Mixed cropping*: Besides the rotation of crops, farmers have developed a system of mixed cropping. The mixtures or combinations commonly used are as follows:

(i) Wal (beans) and Sanbi (hemp).
(ii) Kodra (a coarse cereal) and Tur (pulse).
(iii) Marvel (a species of rice) and Tur (pulse).
(iv) Nagli (a coarse cereal) and Tur (pulse).

The first mixture is invariably grown in Kyari or rice-land in winter and the other three in Jarayat or dry-crop land in the monsoon. The reason for growing the first mixture, as a good many farmers told us, is that the latter crop shoots up earlier than the former, covers the former and protects it against the effects of a fall of dew. Regarding the other three mixtures they have little explanation to give except that that is the usual practice from time immemorial. We may note in passing that science tells us that cereal crops, as a rule, take off much nitrogen from the soil; and Tur which is a leguminous crop, absorbs nitrogen from the air and supplies it to the soil.

1 This crop sucks up 41 lbs. of nitrogen and 68 lbs. of potash per acre; Intensive Farming in India, Kenny. P. 407.

It will be interesting to read two illustrations of the features of agricultural practice we have described above. They are taken from crop registers maintained by Government and refer to the fields of two fairly intelligent farmers. They form practically the history of cultivation on two plots for the last sixteen years and read as under :

| YEAR | THE CROPS RAISED IN | |
|---|---|---|
| | Survey No. $\frac{648}{3}$ (Kyari) Area : 10 gunthas | Survey No. 132 (Jarayat) Area : 2 acres |
| 1911 | Paddy | Kodra and Tur |
| 1912 | ,, + wal | Castor seed |
| 1913 | fallow | Kodra |
| 1914 | Paddy + wal | Grass |
| 1915 | Paddy | ,, |
| 1916 | Paddy (Kharif) | ,, |
| 1917 | Sugarcane (Rabi)<br>Sugarcane (Kharif) | ,, |
| 1918 | Paddy | ,, |
| 1919 | ,, + wal and Sanbi | ,, |
| 1920 | Paddy | ,, |
| 1921 | ,, + wal | ,, |
| 1922 | Paddy (Kharif) | ,, |
| 1923 | Sugarcane (Rabi)<br>Sugarcane (Kharif) | ,, |
| 1924 | Paddy + wal | ,, |
| 1925 | Paddy | ,, |
| 1926 | Paddy + wal | Kodra and Tur |

(3) *Use of manures* : The manure most commonly used in this village is cattle-dung. It is dumped in a pit which is only at a short distance from the cattle-shed and left to decompose or ferment. These manure-pits are generally kept under the shade of trees. House-sweepings, ashes and other rubbish are also thrown into these pits

where they mix up with cattle-dung and form rich manure. The whole supply of cattle-dung is not used as manure. It is a usual practice among almost all farmers whether Kaliparaj or Ujaliparaj to use some portion of it as fuel. A good number of the Kaliparaj earn a few rupees by selling dung-cakes at Bulsar. Both these practices mean that the soil is starved to the extent to which the quantity of cattle-dung, the only manure an average farmer can afford to use, is diverted to non-agricultural purposes.

From our personal observation, we found that only a few people know the true value of cattle-urine as a kind of manure. Of those, who know that weight for weight urine is a much richer manure than cattle-dung, few have made attempts to conserve the whole of it available during nights and non-working hours.

Cattle-dung is generally used as a manure only in paddy and sugarcane fields. No manure is used in fields of jarayat soil. Such fields are kept fallow at intervals and only grass is allowed to grow. At different parts of the year, goats, sheep and cattle are allowed to graze on these plots. The excreta and the urine which they drop are the only manure these fields get.

Occasionally, for preparing a field for sugarcane, sanbi (jute-seed) is grown in June or July. When it becomes mature by the end of August, the plants are puddled in green. This use of green manure, as some of them said, considerably improves the texture of the soil.

It is a frequent practice with many farmers to make *adar*. This practice means that the dry leaves that have dropped down from trees, dry plants and such other rubbish are collected, heaped in the midst of a field and set on fire. The ash left behind supplies potash and enriches the soil. This practice is usually followed while preparing a nursery for paddy or nagli plants.

Only half a dozen farmers use bones and fish as manure for mango-trees and chiku-plants. The use of castor-oil cakes as a manure for sugarcane is similarly limited. No artificial fertilisers are used in this village, though

on enquiry, we found that a large quantity of ammonium sulphate was used as a manure for sugarcane last year in Palan, a village about four miles to the west of Atgam.

(4) *Quality of cultivation* : Farming in this village is of varying degree of excellence. A few Anavils and the Kolis compete with one another in attaining perfection; the former by their able management and the latter by their personal exertion. The Dhodia farmers are generally regarded as, and, as a matter of fact are, inferior in methods of cultivation. Very careful cultivation is done by all those who grow sugarcane, which requires a certain degree of fineness of tilth for a full growth. All agricultural operations are performed with the help of indigenous implements and tools of which more anon.

(5) *Fencing* : The subdivision and fragmentation of land prevents farmers from erecting permanent fences and turning their fields into well-demarcated areas. As a rule, when the different crops shoot up in the monsoon, farmers raise temporary fences round about their fields. These fences are nothing but the thorny branches of babul-trees placed one with the other in such a way as to allow no stray cattle to get in and damage the crop. Some Anavil, Bania, Koli, and a few other cultivators have, however, erected round their big plots of land fences consisting of Thuer plants[1] which grow thickly and form a strong, impenetrable barrier for animals. Sugarcane being a sweet crop, requires considerable care in this respect. Even in this case, the majority of farmers raise temporary fences of Thuer or other plants or thorny branches of babul-trees. They also make 'frantic efforts to drive pigs, monkeys and jackals away by passing sleepless nights and shouting or throwing stones at them.' Wire-fencing has been introduced very recently by one Anavil farmer and it seems that it is likely to catch the fancy of those who can afford it.

[1] A kind of vegetation bearing thorns.

(6) *Seed-preservation* : The farmer, whether Kaliparaj or Ujaliparaj, understands the value of using good seed. He generally selects the best ears or sheaves, as the case may be, from his fields and preserves them for seed. But a greater number of farmers, especially the Kaliparaj, are too poor to select and preserve good seed. They generally borrow it from the local Bania sowkars or bring it from their relatives staying in some villages near by.

(7) *Introduction of new crops* : While studying the natural environment of the farmer of this village, we noticed that there is a great element of uncertainty about his occupation, which depends on uncertain factors like rainfall and climate. In spite of these discouraging circumstances, one is happy to find that two new crops—new to this area—namely cotton and wheat are introduced in this village. Cotton was first introduced by Mr. Manibhai [1] in 1916. It has now become one of the usual crops raised by a good number of cultivators of this area. Wheat was successfully grown only last year by a Dhodia farmer and has been continued this year also by him and imitated by another farmer.

(8) *Economy and leakage* : It is often said by the farmer "Ek kasar and so safar" i.e. 'a single act of economy in agriculture enables one to acquire as much wealth as one's hundred commercial ventures in foreign countries can.' This characteristic love of economy is really a remarkable feature about the agricultural practice of these farmers. The straw of paddy, the leaves and stems of wal, cotton-seed and the upper shoots of sugarcane plants when green are used as fodder crops. The chaff of paddy is pulverised and used along with guar and cotton-seed as a concentrated food to cows and she-buffaloes in milk. The upper shoots of sugarcane, when dry, are used for roofing houses. The raw mangoes blown off from their parental trees by violent winds are used in

1 The present Police Patel of Atgam and Honorary Organiser of Co-operative Societies for Bulsar Taluka.

making a variety of pickles. The straw of Kodra is used by the Kaliparaj to serve as beds. The stems of jute are used as fuel. Thus, as much economy as possible is effected in the use of agricultural bye-products. Yet there is considerable waste.

This waste is due to several factors as shown below: (i) In the first place, it is due to crop-pests and plant-diseases. Red rot (locally called Ratdo) and leaf smut are the diseases which frequently overtake sugarcane in this part. At the same time white ants often attack this crop and spoil some sugarcane plants by eating them away at the bottom. The people are not aware of adequate remedies to cure and prevent such plant-diseases or attacks of pests.

(ii) When sugarcane sets are being manufactured into gul it is a usual practice to invite relatives and friends to drink juice and eat warm gul. In the case of some farmers, even potfuls of juice are sent to others. This may be a good way of creating fellow-feeling but on the whole it results in much waste.

(iii) Monkeys, jackals and pigs, as already mentioned, take away their share of the farmers' produce.

Some of this leakage is almost inevitable under the present circumstances. Let us take, for instance paddy. When the seeds are sown, some do not germinate at all. Of those that germinate, a few seedlings are spoiled in the process of transplantation. After transplantation, as soon as plants grow mature and put on sheaves, sparrows come in numbers and feed on the grains. Again, some grains drop down when the paddy plants are being harvested and some are lost while removing them from the farm to the farmers' house. Even when they are heaped in the farmers' compound, they are not safe, since white ants, found in large numbers in this place, swarm the ground below the heap and eat away the sheaves at the bottom. Some grains are again lost in separating them from straw and winnowing them.

The mind of the people in connection with some of the

topics here discussed is reflected in local proverbs which are in current use e.g.

(1) Skilful rotation of crops and careful tilth yield rich crops.[1]

(2) As a man prospers by wealth, so does a farm by the use of manures.[2]

(3) Deep ploughing and the use of green manures yield luxuriant crops.[3]

(4) The better the seed the richer the crop.[4]

When we read and hear these proverbs and ruminate over them, we feel with Mr. Kenny that "the discoveries of science in Europe during the last quarter of a century are, in India, the petrified customs derived from hoary antiquity."[5]

## MAIN CONCLUSIONS

*The following are the main conclusions of this chapter :*

(i) Agriculture is the mainstay of the village, in which peasant-proprietors form the bulk of the community.

(ii) A study of the agricultural practice of the people shows that, though there are defects like the use of a part of cattle-dung as fuel or, the wastage of cattle-urine and inadequacies like the absence of the use of artificial ferti-

1 The original in the Gujarati runs thus:

विचार करीने वावजे, वारा फरती मोल;
खेड करजो खंतथी, उपज थाय बहु मोल.

2 The original *runs* thus:

खातरे खेती अन धने बुनीआत.

3 The original is:

उंडी खेड ने लीलुं खात,
पाके लही तो खावी लात.

4 The original is as follows: जेबु बी तवा छोड,

5 Intensive Farming in India, p. 284.

lisers, on the whole the present practice shows a good amount of intelligence on the part of the people.

Having thus determined the place of agriculture in the economy of the village and examined the extent of care with which it is carried on by the people, we shall pass on to a consideration of the economics of cultivation with a view to ascertain the nature of agriculture as a source of income to them.

## CHAPTER—VI

# ECONOMICS OF CULTIVATION.

### INTRODUCTORY REMARKS

In the last chapter we have considered the general aspects of agricultural life and practice of the people. In this chapter we proceed to greater details and see as far as the data permit, the economics of cultivation as it is carried on in the village. Under this broad heading our main object is to consider the total net agricultural income of the families which our economic enquiry embraces. This is the most important as well as the most difficult subject in all village surveys and requires a thorough consideration.

In order to ascertain the net agricultural income for the village as a whole, we shall first of all study the average cost and return per acre of the principal crops raised in the village. We shall then estimate the net receipts from all forms of vegetation found in the village and finally calculate the actual net income derived by the families. We shall first proceed to see what crops are raised in the village.

### CROPS OF THE VILLAGE

The following is a summary, extracted from Government Records, of crops raised in the village in 1926-27.

| | Acres |
|---|---|
| Total gross cropped area . . . . . . . | 3525·5 |
| ,, net ,, ,, . . . . . . . | 2884·0 |
| Fallow . . . . . . . . . | 259·4 |
| Area double cropped . . . . . . . . . | 641·5 |

| | | Acres |
|---|---|---|
| Grain crops . . . . . . . . . . | | 908·2 |
| Paddy | 762·9 | |
| Nagli | 56·0 | |
| Kodra | 86·5 | |
| Jowar | 2·8 | |
| Pulses . . . . . . . . . . . . . | | 499·7 |
| Wal | 464·2 | |
| Tur | 14·7 | |
| Lang | 11·7 | |
| Other Pulses | 9·1 | |
| Spices 1 . . . . . . . . . . . . | | 4·0 |
| Vegetables . . . . . . . . . . | | 3·2 |
| Tobacco . . . . . . . . . . . . | | 5·5 |
| Til . . . . . . . . . . . . . . | | 0·9 |
| All non-commercial crops . . . . . . . | | 1421·5 |
| Sugarcane | 26·2 | |
| Castorseed | 129·0 | |
| Cotton | 34·1 | |
| Hemp | 6·7 | |
| Mango Trees | 5·7 | |
| Plantain " | 2·4 | |
| All commercial crops . . . . . . . . . | | 204·1 |
| Total area under grass . . . . . . . . | | 1899·9 |
| Percentage of area under non-commercial crops to the gross cropped area . . . | | 40·3 |
| Percentage of area under Commercial-crops to the gross cropped area . . . . . | | 5·8 |
| Percentage of area under grass to the gross cropped area . . . . . . . . . . | | 53·9 |

*General features* : With the exception of jowar, all the cereals are Kharif or rain-fed crops. With the exception of Tur, all the pulse crops are Rabi or winter-crops. Tur is mostly raised, as noted elsewhere, as a mixed crop either with Marvel, Kodra or Nagli. Spices, vegetables, tobacco and til are classed as non-commercial crops be-

1 This includes chillies, garlic, etc.

cause they are raised in this village for domestic consumption only. Sugarcane and cotton are what are called in Government Reports 'perennial crops,' that is, they practically occupy the field for both Kharif and Rabi seasons. Mango trees are found spread over the village. Plantain trees are raised only by a few farmers. These are all regarded as commercial crops since their produce is invariably reserved for sale and not for private consumption. The area under grass is relatively large in this place. Having thus noticed a few general features of the crops raised in this village, we shall now pass on to a study of the economics of the principal crops.

## ECONOMICS OF THE PRINCIPAL CROPS

In considering the economics of each crop, we have first given a brief description of the principal processes of cultivation in raising the particular crop and subsequently given a balance-sheet[1] for the same. It is necessary, however, to describe at this stage how we have constructed these balance-sheets.

*Method of constructing balance-sheets of crops* : We first of all approached a few intelligent farmers, who supplied us with some figures of actual expenses, made for different processes of cultivation with regard to a few crops. These figures were, however, found inadequate. With a view to supplement our data on this subject, we consulted a number of skilful Kaliparaj and Ujaliparaj cultivators and verified the figures of yields and estimates of expenditure for different crops per Bingha (2/3rd of an acre).

In the actual process of framing the balance-sheets of crops there were a number of difficulties. We may mention the principal ones along with the manner in which we overcame them.

(i) It is easy to understand that while considering the

1 This means the average cost of, and return from, a crop. For want of a more appropriate word we have used this phrase.

balance-sheet of a crop we cannot ignore the farmer who raises the crop. The cost of a crop will differ as the farmer raising it works himself or solely depends upon hired labour. In the village under study, both these classes of cultivators are present, though the former constitute the bulk of the cultivating populace. For whom we should prepare the balance-sheet of a crop was the difficulty. We solved it by constructing balance-sheets for both—an average capitalistic cultivator as well as a self-working cultivator.

(ii) As the cost of a crop varies with the efficiency with which the field work is done, we have assumed that the average farmer for whom the balance-sheets are prepared is a fairly diligent fellow and finishes all his field work in reasonable time.

(iii) Again, the cost of a crop when raised by a self-working cultivator, will vary with the number of working members in his family. We have, therefore, assumed that an average family of such a cultivator consists of two working males and one female. This assumption is based on the fact that the average family of the Kaliparaj, who form the bulk of the population of this village, consists of two male and one female adults.

(iv) It is widely known that in our rural areas the system of cash economy is found side by side with that of kind economy. It was a great difficulty to calculate the rate of wages in view of this. After taking all things into consideration[1] we have adopted for the purpose of calculation, five annas per day for a male labourer and four annas per day for a female labourer. We may also note that the services of a pair of bullocks are valued at eight annas per day.

(v) In the balance-sheets we must set aside some amount by way of depreciation of cattle and implements and for repairing charges. In actual practice the average cultivator does not set aside any amount for depreciation.

1 Vide Chapter X

We have, therefore, omitted that item from our calculation of the cost of a crop. But as he does spend every year some amount for getting some of his implements repaired and others renewed, we have reserved for it a separate column headed 'Other necessary expenditure' in our schedule, along with other items of annual expenditure incurred by a family. This was done with a view to avoid unnecessary complication in preparing balance sheets.

(vi) As a rule, the average farmer does not purchase manure nor does he hire the services of bullocks. Some, however, do so at certain periods of hard work in a year. These individual peculiarities formed a great difficulty. Again, the average farmer does not dispose of all his produce. *He sells off some portion and retains the rest for* private consumption. These difficulties were solved by assuming that the average cultivator parts with the whole produce of his land at the prices of 1926-27, and purchases every thing for raising his produce, including even manure, and the services of bullocks at the prices for the same year.[1]

In view of the complexities of the calculations involved, this explanation of the method is thought necessary. In the existing village studies, such an attempt has not been made. We do not claim complete accuracy for this method, but we believe that such a statement will enable future investigators to make the method more accurate in course of time.

1 This may at first sight appear to be a very bold assumption. But it is necessary to remember two things: (i) while calculating the annual cost of living of the farmer's family we have assumed that the farmer purchases the whole quantity of corn needed for a year at the prices of 1926-27; and (ii) while calculating his net income from cattle we have credited him with the value of manure and the services of bullocks at the prices for the same year. It is obvious from this that just as we credited him with the price of his whole produce, so we have debited him with the cost of his total annual corn requirements. Similarly though we have here debited him with the cost of manure and services of bullocks, we have credited him with the income therefrom if he owns cattle. Thus the whole question is one of mere transfers of entries.

We shall now go on with the discussion of the balance sheets of the principal crops of the village in the order in which they are mentioned above.

(1) *Paddy—(a) Kada—a species of rice.*

Kada is a species of rice, inferior in quality and cheaper in value to Kolam or Vankvel, the well-known species of rice used in Bombay. It is the principal cereal crop raised here. Its seeds are broadcasted in June. The seedlings that shoot up within a week are transplanted in July from their nursery bed to other rice-beds prepared for them. This crop is weeded once or twice in August. The sheaves of corn appear in September. The crop is harvested in October. The plants laden with sheaves are cut by a sickle close to the ground, bundled and carried home from the field. They are afterwards untied, spread out on the ground prepared for them and grains trodden out by cattle. The yield per acre varies from 25 to 35 maunds. The following is the balance-sheet for this crop :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1. Labour cost (animals and men) | | | | | | |
| *(a)* Levelling the land, dressing sides etc. | 2 | 14 | 0 | — | | |
| *(b)* Two ploughings, sowing and harrowing. | 2 | 4 | 0 | 0 | 8 | 0 |
| *(c)* Weeding. | 1 | 11 | 0 | — | | |
| *(d)* Preparing the beds. | 5 | 0 | 0 | 2 | 0 | 0 |
| *(e)* Transplantation. | 6 | 12 | 0 | — | | |
| *(f)* Weeding. | 2 | 4 | 0 | — | | |
| *(g)* Harvesting. | 3 | 6 | 0 | — | | |
| *(h)* Collecting, bundling and bringing to the Khali. | 4 | 8 | 0 | — | | |
| *(i)* Separating and winnowing. | 8 | 4 | 0 | 4 | 8 | 0 |
| *Total* | 36 | 15 | 0 | 7 | 0 | 0 |
| 2. Cost of manure, 30 cartloads at Rs. 0-8-0 per unit for 15 of rich manure and at Rs. 0-4-0 per unit for 15 of ordinary manure. | 11 | 4 | 0 | 11 | 4 | 0 |
| 3. Cost of seed, 3 maunds at 2-0-0 per unit. | 6 | 0 | 0 | 6 | 0 | 0 |
| 4. Land Revenue. | 10 | 0 | 0 | 10 | 0 | 0 |
| *Grand Total* . | 64 | 3 | 0 | 34 | 4 | 0 |

Income:

| Value of | Rs. | As. | Ps. |
|---|---|---|---|
| 1. Paddy grain ($52\frac{1}{2}$ maunds at 42-0-0 for 21 maunds). | 105 | 0 | 0 |
| 2. Straw ($2\frac{1}{2}$ cartloads at 2-0-0 per unit) | 5 | 0 | 0 |
| | 110 | 0 | 0 |
| Net profit to the capitalistic cultivator | 45 | 13 | 0 |
| Net profiit to the self-working cultivator | 75 | 12 | 0 |

(1) *Paddy* :—(b) *Marvel—another species of rice.*

This species of rice differs from the former mainly in two respects. (1) It is invariably grown in dry-crop land and not rice-land. (2) It is never transplanted. Every other detail is similar to that given in connection with Kada. This species, however, requires more labourious weeding than the other. The following is the balance-sheet of this crop :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1. Labour cost (animals and men) | | | | | | |
| *(a)* Cleansing the land | 1 | 4 | 0 | | | |
| *(b)* Removing stubbles etc. | 1 | 10 | 0 | | | |
| *(c)* Tilling the land, sowing Marvel | 5 | 0 | 0 | 2 | 0 | 0 |
| *(d)* One after ploughing and harrowing | 1 | 9 | 0 | 0 | 8 | 0 |
| *(e)* Fencing | 1 | 14 | 0 | | | |
| *(f)* Two weedings | 13 | 0 | 0 | | | |
| *(g)* Bringing to the spot, Marvel. | 3 | 14 | 0 | | | |
| *(h)* Separating grains | 5 | 0 | 0 | 2 | 8 | 0 |
| *Total* | 33 | 3 | 0 | 5 | 0 | 0 |
| 2. Cost of fencing material | 0 | 12 | 0 | 0 | 12 | 0 |
| 3. Cost of seed, 3 maunds @ Rs. 2-0-0 per unit | 6 | 0 | 0 | 6 | 0 | 0 |
| 4. Land Revenue | 1 | 6 | 0 | 1 | 6 | 0 |
| *Grand Total* | 41 | 5 | 0 | 13 | 2 | 0 |

Income:

| Value of | Rs. | As. | Ps. |
|---|---|---|---|
| (1) Marvel grains (30 maunds @ 1 12 0 per unit) . . . . | 52 | 8 | 0 |
| (2) Punja or Straw . . . . . | 2 | 0 | 0 |
| *Total* | 54 | 8 | 0 |
| Net Profit to the capitalistic cultivator . | 13 | 3 | 0 |
| Net Profit to the self-working cultivator | 41 | 6 | 0 |

(2) *Nagli—a kind of coarse corn.*

Nagli is a small grain, red in colour and resembling a mustard seed. Like paddy of either species it is a quarterly crop. It is cultivated in a way similar to that of Kada, but with this difference that it is invariably grown in jarayat or dry-crop land, while Kada, as already mentioned, is always grown in Kyari or rice-land. This grain constitutes a favourite food of the Kaliparaj tribes. Its balance-sheet is given below :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1. Labour cost (animals and men) . . | | | | | | |
| (a) Doing adar . . . . . . | 1 | 4 | 0 | — | | |
| (b) Preparing seed-bed . . . | 10 | 0 | 0 | 4 | 0 | 0 |
| (c) Removing weeds from beds, sowing . . . . . . . | 1 | 14 | 0 | — | | |
| (d) Transplantation . . . . | 4 | 8 | 0 | — | | |
| (e) Two weedings. . . . . | 3 | 12 | 0 | — | | |
| (f) Cutting, bringing. . . . | 7 | 8 | 0 | — | | |
| (g) Separating grain . . . . | 3 | 4 | 0 | — | | |
| *Total* . | 32 | 2 | 0 | 4 | 0 | 0 |
| 2. Cost of manure . . . . . . . . | 4 | 0 | 0 | 4 | 0 | 0 |
| 3. Cost of seed, 2 seers @ 0-0-9 per seer | 0 | 1 | 6 | 0 | 1 | 6 |
| 4. Land Revenue . . . . . . . . | 1 | 6 | 0 | 1 | 6 | 0 |
| *Grand Total* . | 37 | 9 | 6 | 9 | 7 | 6 |

Income:

Value of

| | |
|---|---|
| Nagli grain (20 maunds @ 2-0-0 per unit) . . | 40 0 0 |
| Fodder . . . . . . . . . . . . . . . | 1 0 0 |
| *Total* . | 41 0 0 |
| Net profit to the capitalistic cultivator . . . | 3 6 0 |
| Net profit to the self-working cultivator . . | 31 8 0 |

(3) *Kodra—another species of coarse grain.*

This is also a three months' crop. The seed is broadcasted in July. It requires considerable weeding in August when monsoon weeds such as Gundardi, Bhopdi, Samo and Kutro shoot up in fields of Kodra and obstruct its growth. The sheaves appear in October, and become ripe in November. The crop is reaped close to the ground and removed home early in the morning lest the grains fall off due to the heat of the sun. The grains are separated in the usual fashion. This coarse corn is used mostly by Kaliparaj tribes who consume it in the form of loaves. The balance-sheet for this crop is similar to the one given for Marvel. Only the price per maund of Kodra is different from that of Marvel. The total gross income from Kodra per acre will come to Rs. 45, excluding the price of its punja or straw which is used only as a bedding by the Kaliparaj or sometimes in packing mango-fruits to Bombay and hence commands little value. The expenses on cultivation of this crop for a capitalistic farmer and for a self-working cultivator will be Rs. 36-3-0 and Rs. 8-6-0 respectively, and their net profits Rs. 8-13-0 and Rs. 36-10-0 respectively.

(4) *Wal—a species of pulse.*

Wal is mostly grown as a second crop to paddy—(Kada). Sometimes it follows sugarcane. Immediately after Kada is reaped and removed from the field, the field is ploughed lest the moisture evaporates, and wal seed sown by means of a wooden seed-drill. Within a week plants make their appearance. They put forth flowers in

the beginning of February. In course of time fruits follow and become ripe by the middle of March. The crop is reaped close to the ground, bundled, and carried home. The plants are allowed to dry for three to four days and then the grain is trodden out by cattle. Its chaff, locally called gotar, serves as a nutrious fodder to cattle. It is often sown mixed with Sanbi or hemp. The following is the balance-sheet for this crop :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1. Labour cost (animals and men) . . | | | | | | |
| (a) Digging, sowing, and 2 ploughings . . . . . . . | 5 | 0 | 0 | 1 | 0 | 0 |
| (b) Weeding . . . . . . . | 1 | 4 | 0 | — | | |
| (c) Harvesting . . . . . . | 1 | 10 | 0 | — | | |
| (d) Separating and winnowing. | 3 | 12 | 0 | — | | |
| *Total* . . . | 11 | 10 | 0 | 1 | 0 | 0 |
| 2. Cost of seed, 30 seers @ 2-0-0 per unit . . . . . . . . . | 1 | 8 | 0 | 1 | 8 | 0 |
| *Grand Total* . . | 13 | 2 | 0 | 2 | 8 | 0 |

Income:

| Value of | Rs. | As. | Ps. |
|---|---|---|---|
| 1. Wal pulse (12 maunds @ 1 8 0 per maund) | 18 | 0 | 0 |
| 2. Chaff . . . . . . . . . . . . . . | 3 | 0 | 0 |
| *Total* . . | 21 | 0 | 0 |
| Net profit to the capitalistic cultivator . . . | 7 | 14 | 0 |
| Net profit to the self-working cultivator . . | 18 | 8 | 0 |

When this crop is sown mixed with jute-plants, the additional costs to the capitalistic and self-working cultivator are respectively 14 annas and 4 annas, and the net profits increase to Rs. 11-4-0 and Rs. 21-4-0 respectively.

(5) *Tur*[1]—*another species of pulse.*

This is mostly sown as a mixed crop with either Marvel, Kodra or Nagli. It is not as extensively cultivated as Wal, and constitutes an article of daily food to but a few high-class families. The tillage operations are almost similar to those in the case of Wal, with the difference that Tur is a monsoon crop, whereas Wal is a winter crop. Since it is always a mixed crop, the expenditure on its cultivation is not very great. The respective costs to the capitalist and self-working cultivator are Rs. 3-15-6 and Rs. 0-3-6. The gross income being Rs. 24 per acre, the crop will leave as net profit to the former Rs. 20-0-6 and to the latter Rs. 23-12-6.

(6) *Lang*—*another species of pulse.*

Lang, like Tur, covers a very small area and is tilled in the same way as Wal. Its chaff serves as a fine cooling fodder to cattle. Its balance-sheet is as under :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| (1) Labour cost (animals and men) | | | | | | |
| (*a*) One ploughing . . . . | 2 | 8 | 0 | 1 | 0 | 0 |
| (*b*) Weeding . . . . . . . | 1 | 2 | 0 | | | |
| (*c*) Digging out and bringing home . . . . . . . | 2 | 4 | 0 | | | |
| (*d*) Separating and winnowing | 1 | 14 | 0 | | | |
| *Total* . . . | 7 | 12 | 0 | 1 | 0 | 0 |
| (2) Cost of seed, 30 seers @ 2 0 0 per unit . . . . . . . . . | 1 | 8 | 0 | 1 | 8 | 0 |
| *Grand Total* . . . | 9 | 4 | 0 | 2 | 8 | 0 |

1 The cereal preceding this, namely, Jowar is omitted since it occupies a negligible area.

Income:

| | Rs. | As. | Ps. |
|---|---|---|---|
| Value of | | | |
| Lang, 12 maunds @ 1 8 0 per maund | 18 | 0 | 0 |
| Gotar . | 2 | 0 | 0 |
| *Total* . . | 20 | 0 | 0 |
| Net profit to the capitalistic cultivator | 10 | 12 | 0 |
| Net profit to the self-working cultivator | 17 | 8 | 0 |

Other pulses like Mag, Vatana, Udid etc. are of little importance since they are not widely grown here. The net receipts from these have, however, been taken to be (as they really are) the same as in the case of Lang. Secondly, condiments, vegetables, til and tobacco are also of little importance, since they are raised only for domestic consumption, and are therefore not given detailed consideration.

(7) *Sugarcane :*

Sugarcane is an annual crop. Malbari and Bharatmorsi are the two species of sugarcane raised in this area. The former is sown in October or November, the latter late in December. The latter is harder than the former and less liable to depredations of jackals or white ants and hence often preferred. Firstly, as noted elsewhere, this crop requires untiring energy on the part of the farmer in all its processes—beginning from sowing to the stage when gul is manufactured out of its juice. Secondly, it is an exhausting crop. Per acre it takes off from the soil 127 lbs. of nitrogen and 298 lbs. of potash.[1] The balance-sheet for this crop is given below :

1 Intensive Farming in India, Kenny, p. 407.

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1. Labour cost (animals and men) . . | | | | | | |
| (*a*) Ploughing and sowing Sanbi | 2 | 8 | 0 | 1 | 0 | 0 |
| (*b*) Twelve ploughings . . . | 30 | 0 | 0 | 12 | 0 | 0 |
| (*c*) Clod-crushing etc. . . . | 12 | 8 | 0 | — | | |
| (*d*) Repairing water-courses from the well to the field . | 3 | 12 | 0 | — | | |
| (*e*) Planting . . . . . . . . | 22 | 12 | 0 | 14 | 0 | 0 |
| (*f*) Fourteen waterings . . . | 182 | 0 | 0 | 84 | 0 | 0 |
| (*g*) Four hand-diggings . . . | 15 | 0 | 0 | — | | |
| (*h*) Earthing up and making watercourses across the field . . . . . . . . | 12 | 3 | 0 | — | | |
| (*i*) Top-dressing-wages . . . | 3 | 12 | 0 | — | | |
| (*j*) Setting up the press. . . | 5 | 8 | 0 | 4 | 0 | 0 |
| (*k*) Harvesting and manufacturing gul . . . . . . | 115 | 0 | 0 | 85 | 0 | 0 |
| (*l*) Watching . . . . . . . | 9 | 0 | 0 | — | | |
| *Total* . | 413 | 15 | 0 | 200 | 0 | 0 |
| 2. Cost of manure . . . . . . . . | 25 | 0 | 0 | 25 | 0 | 0 |
| 3. ,, ,, seed (1500 whole canes). . | 150 | 0 | 0 | 150 | 0 | 0 |
| 4. ,, ,, fencing material and rent of net and pots . . . . | 42 | 0 | 0 | 42 | 0 | 0 |
| 5. ,, ,, fuel . . . . . . . . . . | 55 | 0 | 0 | 55 | 0 | 0 |
| 6. ,, ,, castor-cake manure . . . | 32 | 0 | 0 | 32 | 0 | 0 |
| 7. ,, ,, two kosh and 2 ropes . . . | 32 | 0 | 0 | 32 | 0 | 0 |
| 8. Rent of the press etc. . . . . . . | 20 | 0 | 0 | 20 | 0 | 0 |
| 9. Land Revenue . . . . . . . . | 2 | 0 | 0 | 2 | 0 | 0 |
| *Grand Total* . | 771 | 15 | 0 | 558 | 0 | 0 |

| Income: | Rs. | As. | Ps. |
|---|---|---|---|
| Gul, 180 maunds @ 3-12-0 per unit. . . . . | 675 | 5 | 0 |
| Rhad, 900 bundles @ 4-0-0 per 100 . . . . | 36 | 0 | 0 |
| *Total* . | 711 | 0 | 0 |
| Net loss to the capitalistic cultivator: . . . . | 60 | 15 | 0 |
| Net profit to the self-working cultivator . . . | 153 | 0 | 0 |

It is worth considering why a capitalistic cultivator persists in raising sugarcane year in and year out, though he sustains a loss on the whole. There are mainly two reasons why he does so. They are :

(i) In this village and, in point of fact, in the whole of Southern Gujarat, there still obtains a system of labour called the Hali system in which a labourer mortgages his labour to the farmer for a loan he takes for celebrating his marriage. A capitalistic cultivator generally keeps one or two Halis for performing field-operations. He is bound to maintain them whether he exacts work from them or not. He, therefore, deems it wise and profitable to occupy them in sugarcane-cultivation.

(ii) Besides making use of labour at his disposal for a productive purpose, the capitalistic cultivator obtains a large amount of cash at the end of the year from the sale of gul. This cash enables him to make the payment of Land Revenue and also to pay the instalment to his sowkar, if any.

(8) *Castor-seed* :

Whether grown as a first or second crop, it is always a winter crop. It is capable of being raised both on jarayat and kyari land. The seed is sown in October. Fruits appear by the end of January and become ripe early in March. The fruits are then picked, carried home, allowed to dry and finally trodden out by male workers, with the consequence that castor seeds are separated from the fruits. These are exported to Billimora or Bulsar. The following is the balance-sheet for this crop :

| EXPENDITURE | With hired labour | | | With cultivator's own labour | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| (1) Labour cost (animals and men) | | | | | | |
| (a) Four ploughings . . . | 10 | 0 | 0 | 4 | 0 | 0 |
| (b) Sowing the seed . . . | 3 | 2 | 0 | 1 | 0 | 0 |
| (c) Picking up . . . . . . | 5 | 0 | 0 | | | |
| (d) Separating seeds . . . | 1 | 4 | 0 | | | |
| *Total* . . . | 19 | 6 | 0 | 5 | 0 | 0 |
| (2) Cost of seed, 30 seers @ Rs 3 per unit: . . . . . . . . . | 2 | 4 | 0 | 2 | 4 | 0 |
| (3) Land Revenue. . . . . . . . | 1 | 6 | 0 | 1 | 6 | 0 |
| *Grand total* . . . | 23 | 0 | 0 | 8 | 10 | 0 |

| Income: | Rs. | As. | Ps. |
|---|---|---|---|
| (1) Value of Castor seeds, 6 maunds @ Rs. 3 per unit . . . . . . | 18 | 0 | 0 |
| Loss to the capitalistic cultivator . | 5 | 0 | 0 |
| Net profit to the self-working cultivator . . . . . . . . . | 9 | 6 | 0 |

It is interesting to note that like sugarcane, this crop also entails loss to the capitalistic cultivator. Yet he grows it for the simple reason that it enriches the soil by drawing in nitrogen from the air, and prepares it for raising sugarcane or Kodra in a subsequent year.

(9) *Cotton* :

Cotton, though an innovation, has passed the experimental stage and is becoming acclimatised to this village. As cultivated at present, it is not a very profitable crop. It requires a considerable amount of weeding. The seed is broadcasted in June. Weeds, which shoot up with full force and obstruct its growth, are removed in August. The crop is intercultured at intervals. The plants put forth flowers in early January. Buds follow suit. They become ripe and burst open in

March. The cotton-fibre is picked and exported either to ginning factories at Chikhli Road about 6 miles to the north-east or to those at Billimora about the same distance to the north-west. The balance-sheet for this crop is given below :

| EXPENDITURE | With hired labour | With cultivator's own labour |
|---|---|---|
| | Rs. As. Ps. | Rs. As. Ps. |
| 1. Labour cost (animals and men) | | |
| (*a*) Removing stubbles and cleansing the ground . . | 3 12 0 | — |
| (*b*) Two ploughings . . . . | 5 0 0 | 2 0 0 |
| (*c*) Sowing the seed . . . . | 1 9 0 | 0 8 0 |
| (*d*) Weeding . . . . . . | 5 0 0 | — |
| (*e*) Interculturing and harrowing | 3 12 0 | — |
| (*f*) Harvesting . . . . . . | 4 8 0 | 2 0 0 |
| (*g*) Carting . . . . . . . . | 0 12 0 | — |
| *Total* . | 24 5 0 | 4 8 0 |
| 2. Cost of seed, 15 seers @ 0 1 0 per seer . . . . . . . . . . | 0 15 0 | 0 15 0 |
| 3. Land Revenue . . . . . . . . | 1 6 0 | 1 6 0 |
| *Grand total* . | 26 10 0 | 6 13 0 |

Income:

| | |
|---|---|
| Value of | Rs. As. Ps. |
| Cotton fibre (6 maunds @ 5 12 0 per maund) . | 34 8 0 |
| Net profit to the capitalistic cultivator . . . | 7 14 0 |
| Net profit to the self-working cultivator . . . | 27 11 0 |

(10) *Hemp.*

This crop is grown either for the supply of fibre or as green manure or sometimes for both the purposes. When grown as green manure, it is generally mixed with Wal which we have already noted. When grown for the dual purpose or fibre alone, it is sown in July. It is allowed to grow till the middle of September. It is then

pulled up by the roots, tied into bundles, each containing about 100 plants and put in water. The plants are taken out after 48 hours and the fibre from each plant is extracted by hand. This fibre is sold sometimes in the form of ropes, sometimes in the form of bundles. The gross income per acre from this crop is Rs. 52. The cost per acre to the capitalistic cultivator and to the self-working cultivator is Rs. 42-3-0 and Rs. 15 respectively. The respective net profits per acre are, therefore, Rs. 9-13-0 and Rs. 37.

## OTHER FORMS OF VEGETATION

In calculating the net agricultural income of the village we must take note of all forms of vegetation. We have so far considered the net returns from the principal crops only. The forms of vegetation now left for discussion are grass and trees. With regard to the area under grass, we have calculated Rs. 10, to be the net receipts per acre to a self-working cultivator as shown below :

| | Rs. |
|---|---|
| Gross receipts per acre | |
| 1800 bundles @ Rs. 10 per 1000 | 18 |
| Expenses of cutting, pressing, etc. . . . . . . . . . | 8 |
| Net receipts . . . . . . . | 10 |

Of the trees, mango trees are the most important. Alphonzo, Payree and 'country' are the three varieties grown here. The yield per tree is so uncertain that it is impossible to get at any accurate figure of net receipts per tree. Equally uncertain is the income from Babul, date trees, tamarind trees and others found in the village. The receipts however from this form of vegetation cannot be ignored in a study of facts. We have, therefore, entered in individual family-schedules, the figures of income from trees, supplied to us by the heads of families in our house-to-house enquiry.

## THE BALANCE SHEET OF CULTIVATION FOR THE VILLAGE AS A WHOLE

Having thus examined the economics of the principal crops, grass and trees found in the village under study, we shall now make an attempt to arrive at an approximate figure of net returns, for the village as a whole, from all these three species of vegetation. In doing this, it is necessary to bear the following considerations in mind.

(i) We have first of all calculated the net income from all crops, excluding sugarcane, for the village as a whole, by multiplying the acreage under each crop by the figure of net receipts from that crop, summing up the acreage under different crops on the one side and net returns on the other, and finally dividing the latter figure by the former figure. This gives us the figure of net average income per acre for all crops combined. This figure we have taken as the standard for calculating net returns from land under crops belonging to each family. Sugarcane is a very rich crop. Only a minority of the cultivators in this village grows it. Hence we have entered Rs. 155[1] per acre as the net receipts from this crop only in those individual family schedules where it figures as a crop. With regard to trees, we have, as already noted, entered the actuals we got from different heads of families in our house-to-house enquiry. Regarding grass we have assumed, as already explained, Rs. 10 as net receipts per acre and entered in individual schedules the figures of receipts from grass area separately from those of receipts from area under ordinary crops. This had to be done because, in the first place, the area under grass is very large in the case of this village; and moreover, the value of grass per acre is very low as compared with that of any other crop. If we amalgamated for the village as a whole the area under different crops and that

1 This figure excludes land revenue and is based on the balance-sheet of sugarcane cultivation discussed above.

under grass on the one hand, and the receipts from them on the other, the figure of average net income per acre would be a mere abstraction.[1]

(ii) We have hitherto included land revenue in the cost of cultivation of the different crops we have studied, in order to present correctly their actual economic position. In our calculation of the net income from land for the village as a whole we have, however, excluded it from the cost of cultivation. The reason is this. In our family schedules, we have reserved a separate column for entering land revenue along with other items of annual expenditure incurred by a family. If we included land revenue in the cost of cultivation for each crop, the burden of land revenue will be deducted in our final calculations of the total net income from land for the village as a whole. As we have already seen, for entering net returns from land in each individual schedule we have used a standard figure of net average returns from land per acre. Thus it will be clear that if land revenue were to be regarded as an item of cost, in the case of each crop, it would be included in our calculation of the net income for the village as a whole, and consequently be included in the cost of cultivation per acre charged to each family. Since we have entered figures of land revenue paid by each family in a separte column along with other items of expenditure, there will be the error of counting the same thing twice in our figure of net income for the total number of families residing in the village.

(iii) As already noted, the self-working cultivator dominates the situation in Atgam. We have, therefore, taken

1 This will be clear from the following explanation: As we shall presently see, the total net receipts from 1577 acres under different crops come to Rs. 79,608. If we add 1900 acres —area under grass—to 1577 acres under crops on the one side and Rs. 19,000 as net receipts from grass-land to Rs. 79,608—rceipts from crops, the result will be Rs. 98,608 as net income from 3477 acres, or Rs. 28·3 as the average net income per acre. If the area under grass and receipts therefrom are not lumped with those for crops, the figure of the average net income per acre comes to Rs. 50. The difference between these two figures of the average net income per acre is obvious.

the net receipts per acre under each crop, in this case, as the basis of these calculations. It may be noted that in the case of the schedules of capitalistic cultivators, while entering the net returns from land, we have deducted the estimated figures of annual wages they pay to labourers so that their income from land may not be over-estimated.

The following are the figures of net returns from each crop used by us in calculating the net income from all crops combined, for the village as a whole.

| KIND OF CROP | Gross income per acre | | | Expenses of cultivation per acre | | | Net return per acre | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. | Rs. | As. | Ps. |
| Paddy | 110 | 0 | 0 | 24 | 0 | 0 | 86 | 0 | 0 |
| Marvel | 55 | 0 | 0 | 13 | 0 | 0 | 42 | 0 | 0 |
| Nagli | 40 | 0 | 0 | 8 | 0 | 0 | 32 | 0 | 0 |
| Kodra | 47 | 0 | 0 | 8 | 0 | 0 | 39 | 0 | 0 |
| Wal | 21 | 0 | 0 | 2 | 0 | 0 | 19 | 0 | 0 |
| Tur | 24 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 |
| Lang | 20 | 0 | 0 | 1 | 0 | 0 | 19 | 0 | 0 |
| Other pulses | 20 | 0 | 0 | 1 | 0 | 0 | 19 | 0 | 0 |
| Sugarcane | 711 | 0 | 0 | 556 | 0 | 0 | 155 | 0 | 0 |
| Castorseed | 18 | 0 | 0 | 7 | 0 | 0 | 11 | 0 | 0 |
| Cotton | 35 | 0 | 0 | 6 | 0 | 0 | 29 | 0 | 0 |
| Hemp | 52 | 0 | 0 | 15 | 0 | 0 | 37 | 0 | 0 |

On the basis of these figures of net return per acre we have arrived at the total income from all crops combined for the village as a whole as follows :

| KIND OF CROP | Area in Acres[1] | Net return per acre | Total return for the village |
|---|---|---|---|
| | | Rs. As. Ps. | Rs. As. Ps. |
| Paddy | 684 | 86 0 0 | 58824 0 0 |
| Marvel | 80 | 42 0 0 | 3360 0 0 |
| Nagli | 56 | 32 0 0 | 1792 0 0 |
| Kodra | 87 | 39 0 0 | 3393 0 0 |
| Wal | 464 | 19 0 0 | 8816 0 0 |
| Tur | 15 | 24 0 0 | 360 0 0 |
| Lang | 12 | 19 0 0 | 228 0 0 |
| Other pulses | 9 | 19 0 0 | 171 0 0 |
| Castorseed | 129 | 11 0 0 | 1419 0 0 |
| Cotton | 34 | 29 0 0 | 986 0 0 |
| Hemp | 7 | 37 0 0 | 259 0 0 |
| *Total* . . . | 1577 | | 79608 0 0 |

Thus the net income per acre under crop comes to Rs. 50-8-0. We have adopted the round figure of Rs. 50 as the net receipt per acre under crops while entering figures of net income from land under crops in different family schedules.

## THE REAL NET AGRICULTURAL INCOME

So far we have considered the net income from different forms of vegetation for the village as a whole. We are now in a position to consider the real net income derived from agriculture by the people of the village whose economic condition we have investigated. In doing this it is necessary to remember :

(i) that in this case we consider the net income derived by 450[2] families only ;

(ii) that the net income that we have hitherto considered is not exclusive of land revenue and consequently in ascertaining the 'real net income' land revenue should be deducted ;

1 Figures are taken to the nearest acre.
2 The reason why, out of 461 families belonging to the village, only 450 have been studied will be explained in Chapter XIV.

(iii) as we are considering the 'real net income' from the stand-point of families residing in the village, we should deduct the rent[1] which they pay to the outside landlords whose lands they have leased ; and also

(iv) the annual repairing and renewing charges that have to be defrayed from the income from land.

Thus though the 'net income' from crops, grass and trees derived by the people of the village as a whole, as calculated above, comes to Rs. 80,201, the 'real net income' from agriculture is only Rs. 68,089 as shown below.

| | Rs. | As. | Ps. |
|---|---|---|---|
| Total net income . . . . . . . . . . . . . . | 80201 | 0 | 0 |
| Deduct, | | | |
| by way of land revenue[1]. . . . . . . . . . | 7221 | 0 | 0 |
| ,, ,, ,, cash rent paid to outside landlords . | 805 | 0 | 0 |
| ,, ,, ,, repairing and renewing charges . . | 4086 | 0 | 0 |
| ∴ Real net income . . . . . . . . . . . . . | 68089 | 0 | 0 |

As this real net income is derived from 2730 acres cultivated by the people of the village the 'real net return' per acre comes to Rs. 24-15-6 or about Rs. 25.[2]

## UNCERTAINTY OF AGRICULTURAL INCOME

The most interesting and important question which arises here is whether agriculture in this village with 'real net income' per acre of Rs. 25 is a steady source of income. We have already seen that out of the last ten seasons only two were better than the year of enquiry, the rest being either similar or worse in nature. Ignoring

1 Rent is of two kinds: (i) kind rent and (ii) cash rent. As regards the first, we have calculated the net income of each family in such a way that the kind rent is already deducted. We shall therefore take only cash rent into account while calculating the 'real net income' from agriculture, for the village as a whole.

2 We may note that our figure of real net return per acre closely resembles that arrived at by Prof. B. S. Patel of the Poona Agricultral College. His figure 25 (rupees) is based on strict accounts kept for 8 years by a farmer of a village in the Broach District. Vide pp. 529-30, Memorandum submitted by Prof. B. S. Patel to the Royal Commission on Indian Agriculture, Evidence Vol. II Part I.

all other considerations and taking the nature of these ten seasons alone into account, it becomes obvious that the real net income from agriculture, which is the main-stay of this village community, varies from Rs. 12·5 to Rs. 30 per acre, on the basis of prices as shown below :

| Year | Net receipts per acre | Year | Net receipts per acre |
|---|---|---|---|
| | Rs. | | Rs. |
| 1917-18 | 25 | 1922-23 | 30 |
| 1918-19 | 12·5 | 1923-24 | 25 |
| 1919-20 | 30 | 1924-25 | 25 |
| 1920-21 | 17·5 | 1925-26 | 17·5 |
| 1921-22 | 27·5 | 1926-27 | 25 |

This element of uncertainty in the main industry of the village is bound to have a highly depressing effect upon the farmers. In their talks with us on the balance-sheets of different crops, their spirit of despondence was too evident to escape notice. We believe that unless agriculture is put on a sound basis it is impossible to improve the economic condition of the village.

## REMEDIES

The following are some of the remedies which, in our opinion, require immediate application.

(1) The dependence of agriculture on the vagaries of rainfall should be lessened by providing some irrigational facilities, as are stated below, in addition to those already mentioned in Chapter II.

(a) The fourteen tanks which are found in the village should be deeply excavated and converted into reservoirs of water ; and

(b) a few pucca bunds should be constructed in the streamlets passing through the heart of the village, in order to store up water, for raising irrigated crops like sugarcane, in greater quantities.

(2) The use of water-pumps, simple agricultural machinery and commercial fertilisers should be encouraged.

## CONCLUSIONS

The following are the main conclusions of this chapter :

(i) that the real net income from agriculture is highly uncertain ; and

(ii) that this uncertainty can be lessened to a great extent, by providing irrigational facilities like deep excavations in the existing tanks, bunding the streamlets passing through the heart of the village and by making other improvements.

## CHAPTER—VII

# LAND AND ITS DISTRIBUTION.

### INTRODUCTORY REMARKS

Though we have studied certain aspects of agricultural life in this village, we have not yet considered the relation of the people to the land. In this chapter, we propose to consider this relation, or the way in which land is distributed among the people. Distribution of land in agriculture means two things :

(i) division of land as between rent-receivers, cultivators who may be partly tenants and partly owners, and mere tenants ; or

(ii) division of land into separate farms owned by different individuals.

In a region where peasant proprietors dominate the situation, the first meaning is out of consideration. The object of the chapter is, therefore, to study the distribution of land into separate farms owned by different individuals.

It is well-known that one of the essentials of successful farming and agriculture is the suitable size, shape and constitution of a farm. However industrious, intelligent and well-equipped a farmer may be, his labour and capital will be lost if he possesses an unsuitable farm or what is generally called an uneconomic holding. This shows how the division of land into several farms, or in other words, the distribution of land, is an important condition of success in agriculture.

We are now in a position to appreciate the true nature of the distribution of land and its importance in the economy of a village like the one under study. We have treated this problem from two stand-points : ownership

and cultivation. Land may have been so owned as a result of distribution, which in its turn is a result of social and economic forces operating for a number of years, that the average unit may fall very short of the economic holding. But, if it is so cultivated that the average farm is greater in size than the economic holding, or at least equal to it, the situation need not be regarded as a very serious one from the wider standpoint of agricultural production for the villages as a whole.[1] In plain language, use is more important than legal title. The cultivated holding is of greater importance than the holding owned. We have, therefore, divided this chapter into two sections : the first embraces the distribution of land as it is owned ; the second considers land as it is cultivated.

## SECTION I.

### DISTRIBUTION OF LAND AS IT IS OWNED

*Introductory* : Distribution of land as it is owned, is a result of social and economic forces working over a series of years. It is, therefore, necessary to study the history of the distribution of land in the village under survey with a view to better appreciate the significance of the present state of affairs.

*Historical aspect of distribution of land in Atgam* : It is unfortunate that no records supplying information about the period prior to 1900 are available. We have, therefore, had to make the best of what inadequate material we could obtain. In studying this aspect only four things are noted, namely

(i) the total number of land-owners,
(ii) the total area owned,
(iii) the size of the average farm or holding as we shall henceforth term it, and

1 Cf. "Who holds the land, is, from the point of view of production, a matter of no importance;—the vital matter is as to who cultivates it." Land and Labour in a Deccan Village, Study No. II, p. 48.

(iv) the exact nature of the distribution of land among the different owners.

Taking the years 1900-1901 and 1917-18 as landmarks we find that the following are the main facts :

| | 1900-01 | 1917-18 |
|---|---|---|
| 1. Total number of landowners . . | 219 | 404 |
| 2. Total area owned, in acres . . . | 3071 | 3143 |
| 3. Average size of the holding, in acres | 14·02 | 7·73 |

The precise nature of the distribution of land among different landholders for these years is indicated by the following table :

| | 1900-01 | 1917-18 |
|---|---|---|
| Number of holders with more than 100 acres: | 1 | 1 |
| ,, ,, ,, ,, 91 to 100 ,, | 2 | 1 |
| ,, ,, ,, ,, 81 to 90 ,, | 2 | 1 |
| ,, ,, ,, ,, 71 to 80 ,, | 1 | 1 |
| ,, ,, ,, ,, 61 to 70 ,, | 2 | 1 |
| ,, ,, ,, ,, 51 to 60 ,, | 6 | 5 |
| ,, ,, ,, ,, 41 to 50 ,, | 7 | 6 |
| ,, ,, ,, ,, 31 to 40 ,, | 14 | 3 |
| ,, ,, ,, ,, 21 to 30 ,, | 17 | 17 |
| ,, ,, ,, ,, 15 to 20 ,, | 17 | 20 |
| ,, ,, ,, ,, 11 to 15 ,, | 15 | 36 |
| ,, ,, ,, ,, 6 to 10 ,, | 24 | 71 |
| ,, ,, ,, ,, 1 to 5 ,, | 67 | 132 |
| ,, ,, ,, below 1 acre ,, | 44 | 109 |
| *Total* . | 219 | 404 |

It may be noted that in the last five frequency groups there is an increase in the number of holders. The frequency group '21 to 30 acres' shows a stationary state. The rest of the frequency groups show a decrease. This means that the holdings larger than 30 acres have been subdivided and hence the increase in the number of holdings smaller than 20 acres. In other words, during the period 1901 to 1917 there was a tendency to increasing subdivision of land.

PRESENT STATE OF DISTRIBUTION OF LAND

In the year of enquiry we find that the distribution is as under :

| | | |
|---|---|---|
| (i) | total number of landholders: | 431 |
| (ii) | total area owned: | 3143 acres |
| and (iii) | the average size of the holding: | 7·3 ,, |

The precise nature of the distribution of land among these landholders is shown below :

| | | Number. |
|---|---|---|
| Number of holders with more than | 100 acres: | 3 |
| ,, ,, ,, ,, | 91 to 100 ,, | — |
| ,, ,, ,, ,, | 81 to 90 ,, | — |
| ,, ,, ,, ,, | 71 to 80 ,, | — |
| ,, ,, ,, ,, | 61 to 70 ,, | 4 |
| ,, ,, ,, ,, | 51 to 60 ,, | 4 |
| ,, ,, ,, ,, | 41 to 50 ,, | 4 |
| ,, ,, ,, ,, | 31 to 40 ,, | 3 |
| ,, ,, ,, ,, | 21 to 30 ,, | 18 |
| ,, ,, ,, ,, | 15 to 20 ,, | 19 |
| ,, ,, ,, ,, | 11 to 15 ,, | 28 |
| ,, ,, ,, ,, | 6 to 10 ,, | 67 |
| ,, ,, ,, ,, | 1 to 5 ,, | 133 |
| ,, ,, ,, | less than 1 acre: | 143 |
| | *Total* . . | 431 |

All joint holdings are regarded as though owned by one of the joint-owners. The number of holders, therefore, becomes an interchangeable term with the number of holdings. As compared with the year 1917-18, the general character of the distribution of land has remained unaltered. A close study of the statistics, however, reveals that all holdings below 100 acres in area have either remained stationary or decreased and that the highest frequency group of holdings of more than 100 acres, and the lowest frequency group of holdings of less than an acre, show an increase. The total area having remained the

same, the natural inference is that these increases must have been brought about, on the one hand, by a process of concentration under a single owner, of some of the plots which formerly formed parts of the holding in lower frequency groups, and, on the other, by a further splitting up of the large fields which has now increased the number in the lowest frequency group. Thus an important two-fold tendency of a consolidation at one end, and a subdivision at the other, is found in operation during the last decade. The other important changes that have taken place in the distribution of land during the last 26 years may be indicated briefly as under :

| YEAR | Total No. of holdings | Total area owned. Acres | Average size of a holding. Acres |
|---|---|---|---|
| 1900-01 | 219 | 3071 | 14·02 |
| 1917-18 | 404 | 3143 | 7·73 |
| 1926-27 | 431 | ,, | 7·3 |

The obvious conclusions from this table are :—

(1) There is a progressive increase in the number of owned holdings, and

(2) there is consequently a progressive decrease in the average size of the owned holding.

*Subdivision of holdings* : This decrease in the average size of the holding does not matter if the size of the holding has not gone below that of an economic holding. What is an economic holding, and as judged by that standard, are these 431 holdings economic? This is the fundamental question. It is recognised by all that small farms do not necessarily mean undesirable farms from the standpoint of agricultural production. On the contrary it will not be wrong to say that they are better than large ones in so far that they can be managed by the individual farmer with greater care and efficiency. What is, however, undesirable is the existence of farms which being too small for profitable cultivation, are uneconomic.

The phrase 'economic holding' has raised a great controversy among Indian economists in recent years. Different economists define it in different ways. Some define it as a holding which can be managed with a pair of bullocks, without any loss so far as the agricultural costs and returns are concerned. Others define it as a holding "which will provide for an average family at the minimum standard of life considered satisfactory."[1] The latter seems to us to be a more scientific definition because no holding can be called 'economic' in the true sense of the term 'economic' unless it has a reference to the man or his family that is supported by it.

Opinion is equally divided regarding the average size of an economic holding. Dr. Mann has taken 20 acres as the size of the economic holding in his second study. Mr. Keatinge wrote that "a gardener in the Surat District with 3 acres of good garden land can support a family in comfort, while in a dry part of the Deccan with poor soil 30 acres might not suffice.[2] He, however, wrote in his Agricultural Progress in Western India[3] that 'a good cultivator aims at cultivating 15 to 20 acres with one pair of bullocks', which he regards as an economic holding in the dry-crop villages of the Surat District. We have taken about 15 acres to be the size of the economic holding for our village. We have further assumed that this should consist of 3 acres of Kyari land and the rest of Jarayat land. We believe that the figure is not too high when we remember that the average soil of the village is deficient in plant-foods and poor in character. Judged by this standard, 376 holdings out of 431 or 87·2 per cent., of the existing number of holdings will be classed as uneconomic. If this test be applied to the holding in 1900 and 1917 we get the following results :

1 cf. Dr. Mann, Land and Labour in a Deccan Village, Study No. II p. 43.
2 Rural Economy in Bombay Deccan, p. 53.
3 Appendix I-B, p. 207.

| YEAR | Total No. of holdings. | Holdings below 15 acres. | Percentage of holdings below 15 acres to total. |
|---|---|---|---|
| 1900-01 | 219 | 150 | 68·5 |
| 1917-18 | 404 | 348 | 86·1 |
| 1926-27 | 431 | 376 | 87·2 |

Evidently there is a progressive increase in the number and percentage of uneconomic holdings.

*Fragmentation of holdings* : In addition to this, the factor that enhances the seriousness of the existing faulty distribution of land is the fact that all these holdings are not held in one block. The following frequency table shows the number of fragments into which these 431 holdings are parcelled :

| Number of Fragments | Number of holding with specified number of Fragments[1] |
|---|---|
| 1— 5 | 286 |
| 6—10 | 62 |
| 11—15 | 42 |
| 16—20 | 22 |
| 21—25 | 7 |
| 26—30 | 3 |
| 31—40 | 6 |
| More than 40 | 3 |
| *Total* . 2642 | 431 |

Thus on the average there are about 6 fragments for each holding. The size of these fragments or plots is given below :

1 For detailed figures, vide appendix VI.

| Size of Plots | Number of Plots of each size |
|---|---|
| Above 10 acres | 30 |
| 9 to 10 ,, | 12 |
| 8 to 9 ,, | ·11 |
| 7 to 8 ,, | 20 |
| 6 to 7 ,, | 18 |
| 5 to 6 ,, | 39 |
| 4 to 5 ,, | 58 |
| 3 to 4 ,, | 75 |
| 2 to 3 ,, | 135 |
| 1 to 2 ,, | 320 |
| Below 1 acre | 1924[1] |
| | 2642 |

At first sight the fragmentation seems to be very serious. It is necessary to remember that though serious, it is not so serious as is shown by these figures. There are two modifying circumstances peculiar to this village :

(i) Of the total area under cultivation, about 25 per cent. is rice-land. Paddy requires to be sown always in small beds surrounded on all sides with a raised boundary. Hence the size of a large number of rice-plots is bound to be small, even smaller than 1 acre ; and

(ii) as already noted, the Kaliparaj farmers live in groups of 8 to 10 families in the midst of their farms. Though, as we shall presently see, their holdings have been fragmented, the effects of these fragments are not seriously felt by them, since they are mostly situated at small distances from their dwellings.

We find from this discussion (i) that the land in this village stands highly subdivided and fragmented ; (ii) that this is the result of a tendency which is in operation for many years, and (iii) that a slow, though imperceptible, process of consolidation in ownership goes on along with a process of subdivision of holdings.

1 The size and number of the plots below 1 acre are as follows:

| | | |
|---|---|---|
| 30 to 40 | gunthas | 201 |
| 20 to 40 | ,, | 311 |
| 15 to 20 | ,, | 216 |
| 10 to 15 | ,, | 339 |
| 5 to 10 | ,, | 562 |
| below 5 | | 305 |

(one guntha = 1/40 acre.)

## THE CAUSES OF SUB-DIVISION AND FRAGMENTATION OF LAND IN THE VILLAGE

The most natural question that arises at this stage is : what are the causes of this grave problem? In our enquiry into the historical aspects of this problem, we came across an interesting case illustrating some of the most important causes of this tendency. It refers to a Dhodia[1] family headed by a man called Kikla Panchia[2] and may be described as under :

Kikla Panchia lived in the 'seventies of the last century. It is reported that he had a family of about 50 persons and was a holder of extensive land. The extent of his landed property is not available, but what it must have been can be guessed from two stories current about him. It is said that he annually produced about Rs. 2,000 worth of gul and 4,000 maunds of paddy. No records are available to show how much land his descendants possessed till we come to the year 1900 when the Bodkhat[3] gives some interesting figures. In this record we find that the original single family was divided into five separate ones and consequently the landed property of the family was parcelled into five divisions. All the five together held 247 acres of land in 80 plots. An examination of the present owners of the Survey numbers that formed these 247 acres gives us the following results :

(i) the total number of landholders has increased from 5 to 53 ;

(ii) of these 53 landholders, 14 belong to the original stock and 39 are outsiders who have come in possession of this property. Of these 39, 37 have purchased land (mostly received in repayment of debt) from different

1 A section of the Kaliparaj which is in a majority in this village.

2 In his Settlement Report of the Bulsar Taluka submitted in 1870 to the Government of Bombay, Mr. Beyts refers to a rich Dhodia family in Atgam. On enquiry we ascertined this family to be the same as that of this man—Kikla—whose history we are relating.

3 A register of landowners prepared at the time of the last Settlement in 1900.

members of this family ; one has received an acre by way of gift made by one of the members of the family and one holds a plot of land as a mortgage ;

(iii) the 14 families into which the original 5 are divided own in all 105 acres at present ;

(iv) the total number of plots as a result of this subdivision through sale, mortgage, gift and partition of land has increased from 80 to 258 ; and

(v) the average size of the holding owned by the members of the original stock has dwindled from 89·4 to 7·5 acres during the last 26 years.

The piece of land given as a gift has an interesting history of its own which shows one of the causes in operation. This piece was given to a Dhed, still living, at the time when all the different families belonging to the original stock sat down to distribute their land. It is reported that when land was equitably divided among different members so as to secure to each, holdings of equal fertility and assessment, a piece of land was left. Not knowing how to dispose it of, it was given away as a gift to the Dhed who served them as a village policeman.

From a careful consideration of this illustration, as well as from our personal observation, we conclude that the following causes leading to subdivision and fragmentation are in operation :

(i) the Hindu Law of Inheritance which gives to each male member of the family an equal share in the family property from his very birth ;

(ii) indebtedness leading to the sale or mortgage of land in the repayment thereof ;

(iii) a strong desire to distribute the landed property of a family among different members so as to secure to each, holdings of equal fertility and assessment.[1]

1 cf. "In addition to the Hindu Law of Inheritence, unequal fertility and assessment, another cause which contributes to this state of affairs is the gradual absorption of large amount of land into the hands of the village sowkar by means of foreclosure of mortgages or sales, etc. The agricultural population in consequence has only a limited area to divide

We also came across instances where the loss of some rural occupations and the depression that has undertaken others, as a result of foreign competition and changes in fashion, have compelled the people to resort to agriculture as a means of livelihood. Though a large number of Dheds who lost their hereditary occupation of weaving blankets, has migrated to places like Bombay for menial service, the remaining have increased their landed estate by purchase. Again, some of the tailors, potters and carpenters residing in the village have augmented their landed possessions in order to supplement their small earnings from their slowly decaying occupations. Thus the pressure on the soil has increased, accentuating the already serious state of affairs.

We have thus studied the extent of subdivision and fragmentation of land and traced the causes which are in operation in this village. It is obvious that the study confirms the general causes of this evil pointed out by distinguished Indian Economists. Its disastrous effects on agricultural production may be summed up in the words of the Royal Commission on Indian Agriculture : "Even where cultivation is possible, fragmentation involves endless waste of time, money and effort ; it restrains the cultivators from attempting improvements ; it enforces uniformity of cropping, and especially restricts the growing of fodder crops in the period when cattle are usually sent out to graze in the fields." [1]

We have so far seen that the distribution of land as it is owned in this village is very defective : not in the sense that property in land is confined to a few but in the sense that land exists in a highly subdivided and fragmented state. This makes agriculture an extremely precarious occupation. We now propose to see whether the other essential of profitable agriculture, namely, cultivation by owners is present or not.

among themselves, so far as the occupation of land is concerned;" P.16. Report of the Pardi Taluka (Surat District) Economic Enquiry Committee, 1926.

1 Main Report, p. 135.

## SECTION II.

## DISTRIBUTION OF LAND AS IT IS CULTIVATED OR AREAS HELD OR TAKEN FOR CULTIVATION

*The village : A place of peasant-proprietors* : "In Western India peasant proprietors dominate the situation."[1] The same is true of the village under survey. Out of 431 landowners, 331 cultivate their land themselves. Thus taking the total number of landowners of the village, about 77 per cent. are peasant proprietors. There are, however, about 80 outsiders who either lease their land to some inhabitants of the village, or allow one of their relatives staying within the village, to enjoy its usufruct in the case of plots that are very tiny. The number of people who cultivate land merely as tenants is 52, and we therefore find that the total number of cultivators is 331 plus 52 equals to 383 as against 431 owners. It must be noted that out of the 331 persons who cultivate their own lands, some lease part of their lands to others, and some lease others' lands for cultivation by themselves.[2] The average size of the cultivated holding comes to 8·2 acres while that of the holding owned, as we have already seen, is 7·3 acres.

1 Agricultural Progress in Western India, Keatinge. p. 64.
2 These details were kindly obtained for us by the village-accountant.

## CULTIVATED HOLDINGS

The following table shows the relation between owned holdings and cultivated holdings :

| | Owned Holdings | | Cultivated Holdings or areas cultivated by one man | |
|---|---|---|---|---|
| | Number | Percentage | Number | Percentage |
| Above 100 acres . . . . | 3 | ·7 | — | — |
| 91 to 100 ,, . . . . | — | — | — | — |
| 81 to 90 ,, . . . . | — | — | 1 | ·3 |
| 71 to 80 ,, . . . . | — | — | 1 | ·3 |
| 61 to 70 ,, . . . . | 4 | ·9 | 2 | ·6 |
| 51 to 60 ,, . . . . | 4 | ·9 | 1 | ·3 |
| 41 to 50 ,, . . . . | 4 | ·9 | 3 | ·9 |
| 31 to 40 ,, . . . . | 3 | ·7 | — | — |
| 21 to 30 ,, . . . . | 18 | 4·2 | 14 | 3·7 |
| 15 to 20 ,, . . . . | 19 | 4·3 | 22 | 5·8 |
| 11 to 15 ,, . . . . | 28 | 6·6 | 49 | 12·8 |
| 6 to 10 ,, . . . . | 67 | 15·6 | 76 | 19·5 |
| 1 to 5 ,, . . . . | 133 | 30·9 | 175 | 45·7 |
| Below 1 acre . . . . . | 148 | 34·3 | 39 | 10·1 |
| | 431 | 100 | 383 | 100 |

A cursory glance at this table is likely to mislead any one. Taking 15 acres again as the size of the economic holding we see that while 12·6 per cent. of the owned holdings are above this limit, only 11·9 per cent. of the cultivated holdings are larger than this. This may suggest that the subdivision of cultivation is greater than the subdivision of ownership. This conclusion is not true, because it applies to a small fraction and the difference is small and because we have seen that the average size of the cultivated holding is larger (8·2 acres) than that (7·3 acres) of an owned holding. A closer study of the different frequency groups given above shows the following tendencies :

(i) while 34·3 per cent. of owned holdings are below 1 acre, only 10·1 per cent. of cultivated holdings are below the same limit. This makes it quite clear that the farmers have a disinclination to cultivate very small holdings.

(ii) Farmers having tiny plots of land under one acre, lease others' plots and go into the upper frequency group of farmers who cultivate areas varying from 1 to 5 acres. Similarly the difference in the percentage of the cultivated holdings and of owned holdings in corresponding groups shows that there is an upward push from every lower group to the higher one until the 15 acre limit is reached in the case of the former. In other words, these small farmers augment the size of their cultivated holdings by leasing others' land, and thus have larger units of cultivation to this extent.

This line of argument leads us to the conclusion that there is a tendency among owners of uneconomic holdings to cultivate larger holdings. This means that the extent of subdivision of cultivation is less than that of the subdivision of holdings.

## CONSOLIDATION OF FRAGMENTS

One is happy to find that there is not only a tendency to cultivate a holding larger than the average owned holding, but also a tendency to consolidation of fragments or plots in actual cultivation. The following typical instances of individual farmers establish this tendency :

Case No. 1. Chhanā Lāla.

| Survey No. | Land owned acres | Land leased acres |
|---|---|---|
| 367 | 2·2 | — |
| 368/1 | 4·3 | — |
| 369/1 | — | 2·6 |

Case No. 2. Unkadio Chhanio.

| Survey Number | Land owned acres | Land leased acres |
|---|---|---|
| 778 | ·07 | — |
| 780/1 | 0·6 | — |
| 777/1 | — | 0·2 |
| 788/3 | — | 0·7 |

Case No. 3. Patalio Jivlo.

| Survey number | Land owned acres | Land leased acres |
|---|---|---|
| 977 | 6·7 | — |
| 978 | 2·7 | — |
| 979 | — | 6·5 |
| 983 | — | 2·7 |

It is obvious in all these cases that the survey numbers just in the neighbourhood of those (fragments) they own are leased by these cultivating landowners to make their cultivation profitable.

We have thus seen (i) that the second essential of profitable agriculture, namely, cultivation by owners is found in a good measure in this village; and (ii) that the tendency to cultivate a holding larger than the average owned holding by the consolidation of fragments in actual cultivation, lessens the evils of fragmentation and subdivision of land. In this connection, we may note two redeeming features that came to our notice :

(1) *Sporadic attempts at consolidation of fragments as owned* : An analysis of the sales of land during the last five years disclosed some attempts made by a few farmers, consciously or unconsciously, to purchase plots in the immediate neighbourhood of their fields and thus to consolidate their fragments. In one instance we found that a farmer paid Rs. 1,125 for a plot of 3·4 acres which

lay just in the neighbourhood of his fields. Of course the price in this case is very high, Rs. 330 per acre ![1] This shows that even at a great sacrifice, some parties are willing to have the benefit of consolidation.

(2) *Joint cultivation of sugarcane* : The other redeeming feature of the situation is the practice of joint cultivation of sugarcane which is at present pursued mostly by the Kaliparaj farmers. This, however, is not due to the fact that they are conscious of the advantages of co-operative cultivation, but because they are practically forced to it for want of capital sufficient to finance the crop singly. This sort of co-operative effort, though thus forced by their economic disabilities, has nevertheless marked effects on the production of sugarcane. Further, it may be noted that it has a great potential value. If, through education and propaganda, people are made to realize the advantages of co-operative cultivation, it is probable that it may be extended in future to the cultivation of other crops.

We thus see that though there are some redeeming features of the highly defective distribution of land in the villages, the problem of sub-division and fragmentation is universal in Gujarat and is so acute everywhere that we can no longer afford to ignore it.

*Remedial measures.* Different remedies have been suggested by different economists and administrators. After a critical review of the various remedies employed in different Provinces, the Royal Commission on Indian Agriculture concludes that the best method of getting relief from the evils that arise from fragmentation of right holders' or landowners' holdings is the *consolidation of holdings or the substitution*—by exchange of land—of a compact block for a number of scattered fragments through the medium of co-operative societies established for that purpose. When this is not likely to

1 How abnormal this price is can be realised when it is remembered that this was a plot of Jarayat land and the average price per acre of this class of soil is Rs. 60 in this village.

be successful, a permissive piece of legislation should be enacted, but such an act must embody the following general principles :

(1) "The scheme should be free from ambiguity and be formulated in as simple a language as possible so that it may be understood by the persons most closely affected ;"

(2) No rigid rule as to the majority to be required need be laid down ;

(3) "The element of compulsion should be reserved till the latest possible stage" and should be used only to bend an obstinate minority.

(4) "The civil courts must be barred from jurisdiction on matters arising under the legislation......
their (farmers') interests must be carefully safeguarded by provision for consideration of all objections at various stages and by allowing a resort to arbitration with power to nominate one arbitrator."

We are of opinion that consolidation of holdings through co-operative societies will take a very long time to solve the problem which affects the very basis of all agricultural production and prosperity and needs an urgent remedy. We further hold that some piece of legislation, such as the one brought forward but temporarily withdrawn in the Bombay Legislative Council with the modifications sugested by the Commisssioners, should be enacted and applied to selected areas. The Bombay Bill laid down that further subdivision of the existing fragments beyond a certain minimum should be stopped, and that attempts must be made to promote consolidation of fragments with a view to increase the size of holdings and thus make them economic. We strongly hold that in its application it must be borne in mind that compulsion is a supplement and not a substitute for education which alone can bring about consolidation.

In order to accomplish this result, the only remedy is to provide subsidiary occupations with a view to divert

*some* portion of the existing population from land, so that the sharers of land may decrease, thus allowing the remaining population to have larger holdings.

## CONCLUSIONS AND RECOMMENDATIONS

The following are the conclusions and recommendations made in this chapter :—

(1) The distribution of land in the village is very defective in the sense that it is owned in a highly subdivided and fragmented condition.

(2) Though there are redeeming features of this condition, such as the tendency to cultivate a holding larger than the average owned holding by consolidating fragments in actual cultivation, the sporadic attempts at consolidating fragments through purchase and joint-cultivation of sugarcane, still the problem of subdivision and fragmentation has reached serious proportions and needs an urgent remedy.

(3) There are two ways of remedying the situation : (i) consolidation of holdings through co-operative societies and (ii) a piece of legislation to prevent on the one hand a further subdivision and fragmentation of holdings below a minimum size legally fixed, and on the other to promote consolidation by means of voluntary mutual exchange of plots.

(4) The permanent solution of the problem is to reduce the pressure of people on the soil by diverting a part of them to subsidiary occupations and thus lessen the number of those who share land for cultivation.

## CHAPTER—VIII

# CAPITAL RESOURCES OF THE VILLAGE—CATTLE AND IMPLEMENTS.

### INTRODUCTORY REMARKS

We have now sufficiently advanced in our acquaintance with the village under survey, its people and their principal occupation. We are therefore in a position to examine some of the prominent features of their economic life before we come to the stage of ascertaining their economic condition with the help of statistics. One of the principal features of their economic life which we propose to consider in this chapter is their capital resources. The capital resources of a rural population usually consist of :

(1) Land,
(2) Wells,
(3) Cattle,
(4) Implements,
(5) Houses,
(6) Utensils and other furniture,
(7) Ornaments and cash, and
(8) Investments.

The first five are more or less directly connected with agriculture. The latter three have an indirect connection with it. The former may be regarded as aids to agricultural production, the latter as its results. We have already dealt with (1) land and (2) wells. We, therefore, propose to deal, in this chapter, with (3) cattle and (4) implements which deserve separate treatment. The remaining forms of capital resources we shall discuss in the next chapter. This chapter has been divided into two sections : the first deals with the principal aspects of cattle, and the second with the several questions connect-

ed with implements and tools used by the people of the village.

## SECTION I.

## CATTLE

The importance of cattle—both working and milking—cannot be overrated in the economy of an Indian village. The former are indispensable in carrying on agriculture which, as we have seen, is the principal occupation of this village. The latter are important both as breeders of good race and sources of milk. In view of this, we shall consider this subject in details under the following three heads :

(1) the quantitative aspect,
(2) the qualitative aspect, and
(3) the annual income.

(1) *The quantitative aspect* :

The following table indicates the number of cattle found in the village at different dates ;

| KIND OF CATTLE | 1915—16 | 1919—20 | 1924—25 | 1926—27 | Increase (+) or decrease (—) over the number in 1915—16 |
|---|---|---|---|---|---|
| Bullocks . . . | 615 | 589 | 618 | 575 | —40 |
| He-buffaloes . | 78 | 58 | 43 | 41 | —37 |
| Total working animals | 693 | 647 | 661 | 616 | —77 |
| Cows . . . . | 405 | 369 | 467 | 393 | —12 |
| She-buffaloes . | 153 | 131 | 150 | 131 | —22 |
| Young ones . . | 833 | 759 | 699 | 597 | —236 |
| Total milch cattle and young ones | 1391 | 1259 | 1316 | 1121 | —270 |
| Total number of bovine cattle. | 2084 | 1906 | 1977 | 1737 | —347 |

| KIND OF CATTLE | 1915—16 | 1919—20 | 1924—25 | 1926—27 | Increase (+) or decrease (—) over the number in 1915—16 |
|---|---|---|---|---|---|
| Goats | 474 | 477 | 756 | 494 | + 20 |
| Sheep | 182 | 124 | 108 | 98 | − 84 |
| Total number of ovine cattle.[1] | 656 | 601 | 864 | 592 | − 64 |
| Total strength of cattle . . . . | 2740 | 2507 | 2841 | 2329 | − 411 |

The facts established by this table are :

(i) Twice in the history of Atgam during the last 12 years the total number of cattle decreased.

(ii) With the exception of goats, there is an all round decrease in the number of cattle in the year of enquiry.

Both these facts have an interesting history behind them which throws considerable light on the cattle-problem of the village. The fall in the number of bovine cattle in the year 1919-20 was found to be, on personal enquiry, due to the famine and influenza of 1918-19 and the sudden rise in the price of hay. During the course of our enquiry about the effects of the famine of this year, we came across an instructive illustration which we may note with advantage.

One of the cultivators who had half a dozen cattle, found it very difficult to purchase hay at high prices. But one day his heart melted. He could tolerate his pet animals turning their pitiable heads towards him no longer whenever he stepped into his cattle-shed. So he ran to one of the local sowkars and requested him to lend a few rupees on the security of his ring. The sowkar gave him one rupee. On, the latter's desiring to have grass instead of a rupee he was given six bundles

1 Though we consider ovine animals as cattle here, in the general consideration of the cattle problem of this village, we have ignored them as they are usually not regarded as cattle.

of grass.[1] This typical instance is illustrative of four important features of rural life e.g.

(i) the intense love of the farmer for his cattle;

(ii) the proverbial lack of capital in the hands of an average farmer;

(iii) the incurring of debt at any unfavourable turn of the season; and

(iv) the way in which the rural capitalist exploits the farmer's necessity in times of difficulty.

The decrease in the year of enquiry is explained by two circumstances: (i) the year 1925-26 witnessed a fodder famine; and (ii) the fodder famine was accompanied by cattle-diseases like sore throat, diarrhoea, cough and others.

In the case of ovine animals which do not eat grass, the decrease in their number in 1918-19 is difficult to explain. Probably a number of them succumbed in the rainy season of 1917-18 when it rained excessively. The same thing happened in 1926-27. Excess of rain, as we learnt from shepherds of this place, proves injurious to ovine animals in two ways: (i) goats and sheep cannot go out in the open to graze on areas of green vegetation with which they are mainly fed by their masters in this part; and (ii) rain water penetrates the feeble roofs of their sheds, wets the floor and rots their feet, causing death in some cases.

This explanation of the variations in the number of cattle at different censuses suggests that either the vitality of the cattle as a whole is too low, because of constant underfeeding, to resist any attack of disease or reduction in what little food they usually get; or that the purchasing power of their owners is low and seriously dwindles in times of famines. We believe that both are responsible for the poor state of cattle in this place, as we shall presently see.

1 This means that the price per 1000 bundles of grass was Rs. 166 whereas the ordinary price in the year of enquiry was Rs. 10.

*Distribution of cattle* : The following table shows the distribution of cattle between the Kaliparaj and the Ujaliparaj per family :

| Kind of Animal | Kaliparaj[1] per family | Ujaliparaj[1] per family |
|---|---|---|
| Bullocks . . . . . . . . | 1·2 | 1·4 |
| He-buffaloes . . . . . . . | ·09 | ·07 |
| Cows . . . . . . . . . | ·8 | ·9 |
| She-buffaloes . . . . . | ·1 | ·5 |
| Young ones . . . . . . . | 1·1 | ·9 |
| Total bovine cattle . . . . . | 3·3 | 4·6 |
| Goats . . . . . . . . . | 1·3 | ·6 |
| Sheep . . . . . . . . . | ·2 | ·2 |
| Total ovine cattle . . . . . | 1·5 | ·8 |
| Total head of cattle . . . . . | 4·9 | 5·4 |

The foregoing table brings out some of the most prominent characteristics of the Kaliparaj in connection with their ownership of cattle in South Gujarat. They are as follows : (i) The Kaliparaj make greater use of he-buffaloes than the Ujaliparaj in field-work, for they cannot afford to keep costly bullocks.

(ii) Unlike the Ujaliparaj, they do not maintain she-buffaloes as a rule, not because they do not like to drink their milk but primarily because they cannot afford to keep them.

(iii) For milking purposes they usually keep goats in large numbers. Goats require little concentrated food. As a rule, they are allowed to graze on the green either

1 The actual figures are given below:

| *Kind of Animal* | *Kaliparaj* | *Ujaliparaj* |
|---|---|---|
| Bullocks . . . . . . . . . . . . | 342 | 233 |
| He-buffaloes . . . . . . . . . . | 29 | 12 |
| Cows. . . . . . . . . . . . . . | 237 | 156 |
| She-buffaloes . . . . . . . . . . | 40 | 91 |
| Young ones . . . . . . . . . . . | 326 | 271 |
| Total bovine cattle . . . . . . . . . . | 974 | 763 |
| Goats . . . . . . . . . . . . . | 395 | 99 |
| Sheep . . . . . . . . . . . . . | 63 | 35 |
| Total ovine cattle. . . . . . . . . . . | 458 | 134 |
| Total cattle heads. . . . . . . . . . . | 1432 | 897 |

on the roadside or on the side of a tank in the monsoon and on the boundaries of fields or on the creepers that cover the fences of the fields in winter and summer. It may be noted that more than maintaining them for the purpose of getting milk the Kaliparaj keep them to serve as sources of meat on festivals.

(iv) If we look to the capacity of the Kaliparaj to maintain cattle it becomes obvious that they keep too many, but if we look to their requirements they seem to fall short of the necessary number.

Inadequacy of cattle : An analysis of the actual figures of cattle and the number of families possessing them shows the following two facts : (i) out of 461 families, 302 (or 65.5 per cent.) possess among them 616 working animals ; and (ii) only 270 (or 55.5 per cent.) possess among them 524 milking cattle. It is evident that, roughly speaking, though there is a pair of working cattle and a pair of milking cattle per family of those who own them, for the village as a whole both classes of cattle are inadequate.

(2) *The qualitative aspect.*

The main problems we propose to consider under this head are (i) the breed and (ii) the health of cattle.

(i) *The breed* : Most of the cattle found in this village are of what is locally known as the Talabda breed. This breed is different from the other which is known as Kankhrej and which we mostly come across in the north of the Surat District and the whole of northern Gujarat. The native breed seems to be inferior to the Kankhrej one. It appears that some of the people of this village have realised this difference and have, therefore, imported for experimentation a breeding bull from the Athwa Agricultural Farm. This was done only last year and it is too early for us to pronounce any judgment on the results of this experiment in cross-breeding. One thing, however, is noteworthy. It is that many intelligent Ujaliparaj and Kaliparaj farmers have already availed

themselves of the services of this bull. This is indeed a happy sign of the times and clearly indicates that the importance of good breed is being realised by a part of the peasantry.

(ii) *The health of cattle* : Passing on to the second problem we may mention at the outset that this problem is in itself one which requires serious consideration for the village under study. This is a sugarcane tract and if irrigation is increased, it means that sugarcane, a crop which requires very strong bullocks while planting and watering, will be cultivated on a far more extensive scale than at present.

From the standpoint of health, the cattle of the village can be divided into three grades. Some cattle which are $3\frac{1}{2}$ to 4 feet in height and possess well-built bodies may be classed as 'good.' Those whose height varies from $2\frac{1}{2}$ to 3 feet and have half developed constitutions may be classed as 'ordinary.' There is, however, a majority of cattle, small in size and lean in appearance, which may be regarded as 'bad' cattle. The first two grades are generally found with the Ujaliparaj farmers and a few of the Kaliparaj who grow sugarcane. The third grade is found mostly with the Kaliparaj.

The natural question that arises at this stage is, what is the cause of the desparity between the quality of cattle owned by the Ujaliparaj and those owned by the Kaliparaj? Close observation and minute inquiry lead us to conclude that the causes lie principally in (i) the quantity and quality of fodder given to cattle ; (ii) the amount of care with which they are tended and (iii) the fact of temporary emigration so extensively resorted to by the Kaliparaj, which prevents them from giving sufficient attention to cattle.

(i) *Feeding of cattle* : This differs in some important respects in the case of working animals—mainly bullocks—and in that of milking ones. We shall, therefore, deal with the feeding of each separately.

The usual food given to the working animals by the Ujaliparaj and a few of the Kaliparaj who possess the first two grades of cattle can be seen at a glance from the following description.

| *Season.* | *Nature and description of food given.* |
| --- | --- |
| Winter and Summer. | Usually grass; frequently supplemented by some substantial food like guar seed. The latter is generally given from December to April which is the season of plying carts for hire. A part of the earnings from carting is usually set apart for purchasing guar seed. A few farmers occasionally give toddy to their cattle. Toddy has a cooling effect and prevents cattle from suffering from foot-disease or mouth-disease mostly due to the scorching heat of the sun in summer. |
| Monsoon. | Dry grass is continued till July. Though the ground is covered late in June with green grass soon after a shower or two, these farmers do not allow their cattle to graze this grass for, as they say, it gives rise to diarrhoea. From July to October the cattle are allowed to graze in private compounds reserved for them by their masters. They are allowed to graze for the whole day. At night they are brought home and given green grass, cut by the farmer from one of the corners of the field. In some cases this is supplemented by nagliflour mixed with gul and ghee. This latter food is, however, usually given when the bullocks are overworked e. g. in transplantation of paddy or planting of |

Monsoon. sugarcane. Some also give sweet-oil cakes. Only one or two cultivators give in addition, turmeric mixed with sesamum oil, which serves as a purifier of blood.

Occasionally grass is replaced or supplemented by straw of paddy, and stems and leaves of wal and other pulses.

The usual food given to milch cattle and young ones is grass, straw and stems and leaves of pulses. But the cows and she-buffaloes, when in milk, are given a kind of substantial food which consists of cotton-seed, guar-seed and kunski i.e. pulverised chaff of paddy.

This systematic method of giving food to cattle is followed by none of those who possess the third grade of cattle. Instead of giving grass usually and straw occasionally, they give to their cattle straw more often than grass. Now straw has a low nutritive power and working animals expected to do hard work on the field cannot get sufficient vitality from this kind of food. It may be noted that even straw is not given in sufficient quantity, for the quantity of straw available to the farmer is limited by the amount of paddy he raises on his small field. Guar seeds are rarely given. This class generally does not keep she-buffaloes which require rich food, but the cows that they keep are also underfed even when in milk.

(ii) *Indifference in tending cattle* : The Ujaliparaj are very careful about their cattle. They keep either herdsmen for taking their cattle regularly out to graze for the whole year or entrust this duty to one of their sons or daughters. Moreover they are always careful about the place of grazing and about the kind of water that their cattle are allowed to drink. The Kaliparaj do send their children to look after their cattle but they are not so careful about these things. Moreover, unlike the Ujaliparaj, these people have not got sufficiently large

holdings to reserve separate compounds for grazing their cattle. Even in the rainy season they send their cattle to graze in the public pasture or more often to the forest area and Government wastes. Now these areas, though they amount in all to 321 acres for the village as a whole, are mostly barren and yield little grass even in the rainy season, with the result that the cattle grazing on them remain half-starved.

(iii) *Emigration* : Most of the Kaliparaj landholders and labourers who cultivate small rented plots go away to outside areas in search of work as soon as the rainy season is over and the crops are reaped. In the absence of the responsible man, the other members of the family grow negligent about the cattle.

At this stage we may dispose of two more topics which are intimately connected with the health of cattle, namely, (i) housing of cattle and (ii) treatment of cattle diseases.

(i) *Housing of cattle* : The housing of cattle is generally satisfactory as regards both the Kaliparaj and the Ujaliparaj. In the majority of cases, cattle are housed under the same roof under which their masters live. We found on inspection, however, that among the Kaliparaj, the stables were not generally cleansed every day, nor the ground, wet with droppings of dung and urine, covered with ash. The natural result is that the bad smelling rubbish found in the stables affects the health of both men and beasts.

(ii) *Treatment of cattle-diseases* : The Ujaliparaj are no wiser than the Kaliparaj in their knowledge of cattle diseases. When on the spot, we found four or five cases where even some of the most intelligent Ujaliparaj farmers stood dumbfounded when some disease suddenly attacked their cattle. The diseases which are common in this area are foot and mouth-disease, cough, choking, impaction of stomach, and so on. A list of these diseases as well as the remedies usually employed by the villager is given in Appendix VII. A glance at it makes it

obvious that almost all the remedies devised by them involve the use of indigeneous leaves and drugs. In some cases, oaths are taken or a man is called, who is supposed to know the art of removing the disease by enchanting some mysterious thing or applying the juice of some unnamed leaves. It is evident that the farmer of Atgam does not care to consult the authorities of the Veterinary Hospital located at a distance of about 9 miles, at Bulsar. Nor, as some of the farmers complained to us, do the latter evince any eagerness or earnestness to assist them by coming in close contact with them. We may mention that the remedies employed by the villagers in the case of fever do not usually prove effective. This shows how necessary it is to impart to them some knowledge of the best means that can be employed to combat such diseases.

Thus the discussion of the problem of numbers and quality of cattle leads to two main conclusions : (i) in the first place the cattle-wealth of the village is inadequate on the whole and (ii) the quality of the cattle in a majority of cases is unsatisfactory.

(3) *The annual net income.*

Under this head we propose to ascertain the net income received by the village from the cattle and other animals it possesses. Among the latter we have already seen that there are a number of ovine cattle. We may note here that besides these animals there were, at the time of the census, three horses and about 2,130 fowls. Though we have ignored the net income from the former, because they constitute only a temporary feature of the village and their number is almost negligible, we have taken note of the latter in arriving at the figure of the net income for the village as a whole, as their number is appreciable.

*Method of constructing balance-sheets for animals* : As in the case of crops, we have first prepared balance-sheets for different animals. The method of preparing

them may be thus described. We have assumed that the owner actually spends cash on every item of expenses necessary to maintain an animal per annum. On the other hand we have assumed that he sells off every product that he receives from the animal whether that product is milk, manure or calf. These suppositions were necessary because (i) the average villager sometimes sells milk and sometimes reserves it for domestic consumption ; (ii) he does not keep any accounts of how much he sells per year and (iii) he does not know how much out-of-pocket expenditure he incurs every year for maintaining the animal. Some may raise an objection that so far as milk or calf is concerned, the second supposition is correct, as the farmer sells either, but this does not apply to manure which he does not usually sell. The explanation is the same that we gave while discussing the method of preparing balance-sheets for different crops. We may, however, repeat it here for the sake of clarity. While considering the expenses on cultivation of different crops we have debited the cultivator with the cost of manure he applies to his land. Here we credit him with the receipts from whatever manure he gets from the animals he owns, per year. Thus it is evident that crediting him with the value of cattle-dung does not inflate his income. Doubts may similarly be raised regarding the entry of grass as an item of cost, though in actual practice most of the farmers use their own grass in feeding their cattle. This may unnecessarily swell the expenditure and consequently reduce net income. To this query, the answer is simple. It will be remembered that while considering his income from land we have credited the cultivator with net receipts from his whole grass land. Here we debit him with the cost of grass. In both cases the sale and the purchase prices are assumed to be the same. Thus there is no attempt at inflating the expenditure.

Having thus explained the method of preparing balance-sheets for animals, we shall now pass on to the dis-

cussion of the balance-sheets themselves with necessary explanation in each case.

(i) *The Balance-sheet for a pair of bullocks.*

(a) *The expenses of maintenance per annum :*

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | 4050 bundles of grass at 15 bundles per day; for 9 months in a year; charged @ Rs. 10 per 1000 bundles . . . . | 40 | 0 | 0 |
| 2. | $1\frac{1}{2}$ cartloads of chaff of wal and $\frac{1}{2}$ cartload of chaff of tur . . . . . . . . . . | 7 | 8 | 0 |
| 3. | 2 Cartloads of straw weighing 1400 lbs. . | 4 | 0 | 0 |
| 4. | Cost of grazing for three months in the rainy-season . . . . . . . . . . . | 10 | 0 | 0 |
| 5. | Green grass given at night during the monsoon—necessary area 2/3rd acre, which can be leased at . . . . . . . . . . | 5 | 0 | 0 |
| 6. | 3 maunds of oil cakes @ Rs. $1\frac{3}{4}$ per maund | 5 | 4 | 0 |
| 7. | $2\frac{1}{2}$ seers of oil @ Rs. 2 for 5 seers . . . | 1 | 0 | 0 |
| 8. | Cost of guar-seed, $7\frac{1}{2}$ maunds, for 5 months at 2 seers per day charged @ Rs. 70 for 30 maunds . . . . . . . . . . . | 17 | 8 | 0 |
| | *Total* . . | 90 | 4 | 0 |

(b) *Gross receipts per annum :*

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | Value of the work of the pair calculated on the basis of the possible number of days they usually work on a holding of 15 acres—the number assumed is 160 days and the value per day 8 annas . . . . | 80 | 0 | 0 |
| 2. | Price of 6 cartloads of well-rotted manure @ 0 8 0 per cartload. . . . . . . . | 3 | 0 | 0 |
| | and of 6 cartloads of ordinary manure @ 0 4 0 per cartload . . . . . . . . | 1 | 8 | 0 |
| | *Total* . . | 84 | 8 | 0 |

Though the gross receipts in this case are less than the total expenditure per annum, we have assumed that

both sides nearly balance each other. The main reason is this. Whether it is a lucrative or a losing proposition, the cultivator has to keep a pair of bullocks if he wants to carry on his occupation. In agriculture timely tillage is an essential condition of success. If the peasant does not possess a pair of bullocks he cannot cultivate his field at the proper time. Moreover in this village a majority of cultivators keep their own bullocks.

We do not propose to give a separate balance-sheet for a he-buffalo, as the number is relatively small in this village. We may mention in brief that he-buffaloes are generally given the same food as is given to bullocks with the exception of concentrated food. On a careful calculation we arrived at the figure Rs. 50 as the annual cost of maintaining a pair of he-buffaloes. Some of the villagers complained to us that a he-buffalo does not put forth work-value in proportion to what it consumes. From minute enquiry we found that it was, therefore, underfed. This leads one to conclude that the receipts from this animal are less than the cost of maintaining it. We have, however, assumed both sides to balance each other. If the expenditure is greater than income in this case, the total budget of the farmer will be underestimated on the side of expenditure, to that extent.

(ii) *Balance-sheet for a she-buffalo in milk.*

N. B.—Average period of lactation equals 12 months.

(a) *Expenses of maintenance per annum* :

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | Cost of concentrated food given during this period at 0-4-0 per day . . . . . . | 90 | 0 | 0 |
| 2. | Cost of delivery . . . . . . . . . . | 15 | 0 | 0 |
| 3. | Cost of grazing in the monsoon . . . . | 10 | 0 | 0 |
| 4. | Cost of green grass given to her in the same season . . . . . . . . . . . . . | 5 | 0 | 0 |
| 5. | Cost of 1000 bundles of grass, 4 cartloads of straw and other things . . . . . | 20 | 0 | 0 |
| | *Total* . | 140 | 0 | 0 |

(b) *Gross receipts per annum* :

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | Price of ghee, produced out of milk; 54 maunds at 4 seers of ghee for every maund of milk; valued at Re. 1-0-0 per seer . . . . . . . . . . . . | 216 | 0 | 0 |
| 2. | Price of dung, 8 cartloads at 8 annas per cartload . . . . . . . . . . . . | 4 | 0 | 0 |
| 3. | Value of the young one born . . . . . | 10 | 0 | 0 |
| | *Total* . | 230 | 0 | 0 |

Thus the net profit in the case of a milking she-buffalo is Rs. 90 per annum. It is necessary to explain why in calculating the receipts we have converted milk into ghee and taken its price as though the income from milk was the same as from ghee. The reason is this. The majority of farmers of this village sell ghee for which there is a market in Bulsar. It is not possible to send milk to Bulsar, which is at a distance of nine miles, because the facilities of conveyance are inadequate.

We may note that when dry, a she-buffalo is usually taken out to graze during the day. She is given grass and straw at night. In the rainy season she is allowed to graze green grass. No concentrated food is given to her. The cost of maintaining her when dry may be taken at Rs. 12 per annum. The only income received from her during this period is manure which may be reckoned at Rs. 2. This leaves a net loss of Rs. 10 when the she-buffalo is dry. Yet she is kept by the farmer because this loss is much more than compensated for, in the future, when she gives birth to a calf, by the value of the calf and the milk.

### (iii) *Balance-sheet for a cow in milk.*

N. B.—Average period of lactation equals 12 months.

(a) *Annual expenses of maintenance* :

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | Cost of special fodder . . . . . . . . . | 45 | 0 | 0 |
| 2. | Cost of delivery . . . . . . . . . . | 10 | 0 | 0 |
| 3. | Cost of grazing in the monsoon . . . . | 5 | 0 | 0 |
| 4. | Cost of green grass . . . . . . . . . | 3 | 0 | 0 |
| 5. | Cost of straw, grass etc. . . . . . . . . | 10 | 0 | 0 |
| | *Total* . | 73 | 0 | 0 |

(b) *Annual gross receipts* :

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| 1. | Price of ghee prepared out of 36 maunds of milk at 2 seers per maund; valued at Re. 1-0-0 per seer . . . . . . . . . | 72 | 0 | 0 |
| 2. | Price of dung . . . . . . . . . . . | 2 | 0 | 0 |
| 3. | Price of the young one . . . . . . . . | 20 | 0 | 0 |
| | *Total* . | 94 | 0 | 0 |

The reason why we have converted milk into ghee in the receipts is similar to the one mentioned above in the case of a she-buffalo. Similarly, just as a she-buffalo is not a profitable concern when dry, so is a cow when not in milk. The cost of maintaining her, however, during this period will be a little less, about Rs. 10. The receipts too, consisting of only dung, will be less, by about Re. 1. This will leave a net loss to the farmer of Rs. 9 which will be compensated for, when she is in milk.

*Net Income from Young Ones.*

A buffalo-calf and a calf are also animals which the farmer has to maintain. The income from them consists of only dung till they become old enough to serve, if they are males, as working animals or, if females, as milking animals. We have assumed that the annual expenses of maintaining a buffalo-calf and a calf are Rs. 5 each, though the income from the former is worth 12 annas and that from the latter is worth only 8 annas. The difference between the income is due to the fact that on an average the dung, which constitutes the only source of income in this case, of a buffalo-calf is usually larger in quantity than that of a calf.

*Net Income from Goats and Sheep.*

So far as goats and sheep as sources of income are concerned, we have assumed Rs. 15 and Rs. 10 as respective gross receipts from them (including the price of milk converted into ghee, the value of young ones and the value of excreta). The annual expenses of maintaining them are practically nil since they are grazed on green vegetation in any part of the village and are rarely given grain. Thus the net incomes from a goat and a sheep are respectively Rs. 15 and Rs. 10.

*Net Income from Poultry.*

Taking into account the average number of eggs a hen lays per year, (making allowance for breakage or theft) and the value of her chickens, we come to a figure of Rs. 2½ as the gross income from a hen per annum. She is usually kept on grains which may be valued at ½ a rupee per year. This leaves Rs. 2 as the net income from a hen per annum.

For easy reference we have summarised below the figures of net annual income, we have adopted, from different kinds of animals, while entering in our schedules the net receipts from them :

| KIND OF ANIMAL | Gross income per head in Rs. | Cost of maintenance per head in Rs. | Net receipts per head in Rs. |
|---|---|---|---|
| Bullocks | 45 | 45 | 0 |
| He-buffaloes | 25 | 25 | 0 |
| She-buffaloes in milk | 230 | 140 | 90 |
| She-buffaloes when dry | 2 | 12 | −10 |
| Cows in milk | 94 | 73 | 21 |
| Cows, dry | 1 | 10 | − 9 |
| Calves | ½ | 5 | − 4½ |
| Buffalo-calves | ¾ | 5 | − 4¼ |
| Goats | 15 | 0 | 15 |
| Sheep | 10 | 0 | 10 |
| Hens | 2½ | ½ | 2 |

Calculated according to the method described above, the total net income from all animals derived by the 450 families that our investigations embrace comes to Rs. 12,776.

## SECTION II.

## IMPLEMENTS

The tools and implements most commonly used by the average farmer in this village are a plough, harrow, seed-drill ,pick-axe, hoe, sickle and scythe. A leather bag called 'Kosh',[1] a pair of ropes and a pair of yokes are found in addition with those farmers who grow sugarcane. Besides these, there are important implements like the Nangar (a seed-drill for planting sugarcane) and Champan (clod-crusher) which are owned only by a few big farmers. Karpi (hoe) and Fadko (three-coultered seed-drill) are introduced only recently as they are necessary for sowing and interculturing of cotton.

An iron press for pressing out juice from sugarcane was introduced about twenty years ago. Prior to its introduction the presses in use were made of wood. On inquiring into the reasons for this change, we were told that, though more costly, an iron press is more efficient and durable than a wooden one.

*Quantity and cost of implements and tools* : The following is the list of implements and tools used in the village. The prices mentioned are those that we obtained from one of the local carpenters and one of the iron-smiths.

1 This is used for fetching water from a well to irrigate sugarcane fields.

# A list of agricultural tools and implements used in the village.

| Names of tools and implements. | Life in years. | Cost in Rs. As. Ps. | Use. | Repairing charges in Rs. As. Ps. |
|---|---|---|---|---|
| 1. Hal (plough with a yoke) | 5 | 11 0 0 | Ploughing | 2 8 0 per annum |
| 2. Paniu (harrow) | ,, | 1 0 0 | Levelling the ground. | |
| 3. Orni (seed-drill) | 5-7 | 0 7 0 | Sowing seeds. | |
| 4. Kuhadi (axe) | 10 | 0 12 0 | Chopping wood, branches of trees etc. | 0 12 0 per annum |
| 5. Kodali (pick-axe) | 7 | 1 0 0 | Digging the ground. | |
| 6. Pavdo (hoe) | 7 | 1 0 0 | Ordinary hoeing. | |
| 7. Panjethi | 3 | 0 4 0 | Gathering leaves of trees or taking out dung from the manure-pit. | |
| 8. Parei | 15 | 1 4 0 | Deep digging. | |
| 9. Datardu (sickle) | 5 | 0 10 0 | Reaping crops and grass. | 0 14 0 per annum |
| 10. Dhariu (scythe) | ,, | 0 14 0 | Cutting branches of Babul, removing thorny plants etc. | |
| 11. Galli (big cart) | 10 | 80 0 0 | Carrying manure crops, grass as well as men. | 11 0 0 per annum |
| 12. Ediu (yoke) | 5 | 4 0 0 | Yoking bullocks to the sugarcane press, or to the Kosh for fetching water. | |
| 13. Champan (clod-crusher). | 5 | 6 8 0 | Crushing clods. | |

| Names of tools and implements. | Life in years. | Cost in Rs. As. Ps. | Use. | Repairing charges in Rs. As. Ps. |
|---|---|---|---|---|
| 14. Nangar (seed-drill for sugar-cane | 25-30 | 15 0 0 | Planting sugarcane. | |
| 15. Kolu (sugar-cane press, iron) | 10 | 100 0 0 / 150 0 0 | Pressing out juice from sugarcane. | |
| 16. Kolu, wooden | 4 | 20 0 0 | ,, ,, | |
| 17. Champan for Kolu | 10 | 8 0 0 | Necessary accompaniment of Kolu, for supporting Nar and Manda—3 rollers in the press—from above. | |
| 18. Thalu (wooden seat) | ,, | 15 0 0 | Supporting the rollers from below. | |
| 19. Pat | ,, | 12 0 0 | A long wooden rod for moving the three rollers. | |
| 20. Kadha (big pan) | 7-8 | 40 0 0 | Boiling sugarcane juice. | |
| 21. Kadha (small pan) | 15-20 | 10 0 0 | Cooling gul. | |
| 22. Kundi | ,, | 15 0 0 | Retaining the juice when sugarcane sets are squeezed between the rollers. | |
| 23. Karpi (hoe) | 5 | 10 0 0 | Interculturing cotton. | |
| 24. Fadko (three coultered drill) | ,, | ,, | Sowing Cotton seeds. | |
| 25. Kosh (leather bag) | 8-12 months | 8 0 0 | Fetching water from wells. | 8 0 0 per annum |
| 26. Vartu (rope for hanging the Kosh) | 1 | 4 0 0 | Suspending the Kosh. | 4 0 0 |

| Names of tools and implements. | Life in years. | Cost in Rs. As. Ps. | Use. | Repairing Charges in Rs. As. Ps. |
|---|---|---|---|---|
| 27. Sarak (rope) | 10 | 4 0 0 | Binding heaps of grass or bags of corn loaded in carts. | |
| 28. Jotar | 2 | 1 0 0 | Tying bullocks to the yoke. | |
| 29. Nandi | 1 | 1 0 0 | Tying the yoke to the cart. | |
| 30. Supdu | 1-2 | 0 5 0 | Winnowing. | |
| 31. Toplo | ,, | 0 8 0 | Carrying grains on head. | |

According to our house-to-house census the village possessed in the winter of 1927 the following numbers of tools and implements. We have omitted very small and unimportant tools of little value like topla (basket) or jotar or nandi.

| | | | |
|---|---|---|---|
| Big carts[1] | 198 | Seed-drills | 193 |
| Ploughs with yokes | 329 | 3-coultered drills | 2 |
| Harrows | 102 | Cotton harrows | 7 |
| Axes | 435 | Sugarcane seed-drills | 18 |
| Pick-axes | 360 | Leather bags | 55 |
| Hoes | 286 | Yokes | 110 |
| Parei | 157 | Sugarcane presses | 4 |
| Panjethi | 326 | Accompaniments of the press | 8 |
| Scythes | 398 | Clod-crushers | 12 |
| Sickles | 1551 | | |

Of these, the most important instruments according to the notion of the people are carts, ploughs and seed-drills for the average cultivator, and leather bags, seed-drills for sugarcane and sugarcane-presses for the average grower

1 Besides these, there were 19 small carts for riding, which may be valued at Rs. 2850. These being of the nature of luxuries are not regarded as agricultural implements.

of sugarcane. The following table shows briefly how these important implements were owned per head of the total number of cultivators in the year of enquiry :

| | Total | Number per cultivator[1] |
|---|---|---|
| Carts . . . . . . . . | 198 | 0·53 |
| Ploughs . . . . . . . | 329 | 0·87 |
| Seed-drills . . . . . . . | 193 | 0·51 |
| Seed-drills for sugarcane . | 18 | 0·33 |
| Sugarcane presses . . . | 4 | 0·07 |
| Kosh . . . . . . . . | 55 | 1 |

Thus it is evident that with the exception of the kosh all other important implements are, therefore, exchanged free of charge and others on hire. For instance, ploughs and ordinary seed-drills for sugarcane are exchanged free of charge. But some money is charged for a cart or a plough when the owner accompanies it as a driver. A press is generally rented and so are its separate parts.

*Hire charges* : The following are the usual rates charged for different units.

| UNIT | Rates charged per day[2] | | |
|---|---|---|---|
| | Rs. | As. | Ps. |
| *a.* A pair of bullocks with a driver and a plough . . . . . . . . . . . | 1 | 0 | 0 |
| *b.* A pair of bullocks only . . . . . . | 0 | 8 | 0 |
| *c.* A pair of bullocks with a driver and a cart . . . . . . . . . . . . | 1 | 4 | 0 |
| *d.* A sugarcane press with all its necessary accompaniments . . . . . . . . | 2 | 0 | 0 |
| *e.* A sugarcane press alone . . . . . | 1 | 0 | 0 |
| *f.* A big pan for boiling sugarcane juice . | 0 | 8 | 0 |

1 In the year 1926-27 there were 376 ordinary cultivators. Of these only 54 grew sugarcane.

2 These are the rates we have adopted in calculating the estimates of expenditure for crops in Chapter VI.

*Repairing charges*: As we have noted elsewhere, though the farmer does not set aside anything for the depreciation of his stock and implements, he spends annually some money for getting some of his implements repaired, and for renewing others. We have already noted the annual repairing charges required by certain implements in the list of agricultural implements mentioned. To calculate the repairing charges for small tools like a pick-axe or an axe in each individual schedule would mean a great loss of time without attaining proportionate accuracy. We have, therefore, reckoned the repairing and renewal charges on certain groups of tools and implements, and used these figures as standard figures while entering the charges in the schedule. These groups are formed with reference to the number and kind of tools and implements which the different classes of people possess. The following are the standards we have adopted :

| | Repairing charge Rs. | As. | Ps. |
|---|---|---|---|
| GROUP I. | | | |
| 1 Plough | 2 | 8 | 0 |
| 1 Pick-axe, 1 Axe | 0 | 12 | 0 |
| 4 Sickles, 1 Scythe | 0 | 14 | 0 |
| 1 Kosh | 8 | 0 | 0 |
| 2 Vartas | 8 | 0 | 0 |
| 1 Cart | 11 | 0 | 0 |
| *Total* | 31 | 2 | 0 |
| GROUP II. = | | | |
| Group I minus 1 Kosh, 2 Vartas | 15 | 2 | 0 |
| GROUP III. = | | | |
| Group II minus 1 Cart | 4 | 2 | 0 |

To facilitate calculations we have adopted the round figures of Rs. 30, Rs. 15 and Rs. 4 as the annual repairing charges for the groups I, II and III respectively.

It will be interesting to note that though these repairing charges seem to be trifling sums when taken by themselves, they assume a large proportion when considered in the aggregate for the village as a whole. As calculated from the schedules collected, we find that the village has to spend Rs. 4086 by way of repairing charges per annum. This is no small sum for a village whose annual net income is only a little more than rupees one lakh and a half.[1]

## CONCLUSION

The main conclusions from this chapter are :

(1) That the cattle of the village are inadequate in numbers and generally poor in quality ; and

(2) that the necessary implements and tools for carrying on cultivation are also inadequate.

1 Vide Chapter XIV.

CHAPTER—IX

# CAPITAL RESOURCES OF THE VILLAGE.

(Contd.)

## HOUSES AND PERSONAL POSSESSIONS

In the former chapter we discussed cattle and implements, two forms of capital resources, which are most closely associated with agriculture. We shall discuss in this chapter the remaining forms of capital resources, namely (5) houses, (6) utensils and furniture, (7) ornaments and cash, and (8) investments.

### HOUSES

The houses in this village may be divided into two classes. One comprises those with a thatched roof; the other, those with a tiled roof. Among the latter, some are roofed with tiles made by the potters in the neighbouring villages, and others are covered with what are called Mangalore tiles. The latter are, however, few and far between. It is usually believed in this place that as a man grows richer the thatched roof of his house is replaced by one covered with local tiles and the latter in course of time by one covered with Mangalore tiles. Our enquiry revealed an element of truth in this belief. The majority of tiled houses, we discovered, were built by former generations in days when tiles were cheap. Garrets are found in almost all houses and are used sometimes for storing grain but often for storing fodder. Storied houses are conspicuous by their absence.

The raw material with which these dwellings are built is generally mud and grass. In some houses we, however, found that bamboo poles were used in construct-

ing walls. In a few exceptional cases walls were erected with bricks and mud or mortar.

*The Kaliparaj House* : The Kaliparaj people inhabiting this village are not so primitive as their tribesmen in the adjoining territories of the States of Dharampore and Bansda, or the Chaudhras of Mandvi Taluka, or the Bhils of the Panch Mahals. Nevertheless the original primitiveness of their forefathers is still found reflected in the way in which they live. As already explained, they do not stay in one area, but in groups of eight to ten families. These are called Falias. Each Falia has a distinct name of its own, whether derived from the name of one of the well-known residents, or from the name of a lake or a tank found in the Falia or sometimes from the name of the neighbouring village. Atgam consists of ten such Falias named Moti, Undi, Patatalao, Bhonyawad, Char, Patalawadi, Ghuriyawad, Bahadurfalia, Segwafalia and Rojasamer. Chari and Segwafalia are so named because they are in the vicinity of the villages bearing those names. Ghuriyawad and Bahadurfalia derived their nomenclature, as our enquiry showed, from the names of two famous dwellers, Ghuriyo and Bahadurio. In Patatalao there is still a tank of that name. For the names of other falias no satisfactory explanation is forthcoming.

The housing of these tribes varies with the status of the occupants. The cottages of Dublas and Naikas who constitute the bulk of the labouring class are generally very small. Most of them are from about 100 to 200 sq. feet in area. The cottages and houses of the farming populace are comparatively large and more roomy. Cattle-sheds are, as a rule, found in the immediate vicinity of the tenements. Entrances are often too low for an adult to walk in. Doors and windows seem to have been ruled out of the construction of cottages. There are, however, a few large tiled houses which are inhabited jointly by a number of families who originally belonged to the same stock.

During the last ten years four Dhodias have bui houses with Mangalore tiles. One of them did it wit a sum borrowed from the local Co-operative Credit Sc ciety ; another from his savings in railway service an two others partly from savings, and partly by borrowing The notion that a family has a high status if it owns house roofed with Mangalore tiles seems to be filterin down, even to these tribes, from their constant associa tion with the fair races.

One of the most remarkable characteristics of the dwellings is an extra structure attached to every cottage This is a crude platform made of bamboos, about 3 fee in height and 4 × 4 feet in area. All the waterpots c the family are stacked one upon another, on this platform and are never kept inside the house.

*The Ujaliparaj House* : The houses vary in size shape and also in building material because their owner belong to many different castes differing in wealth. I general the depressed classes, Bharwads, a few Machhi and a few Kolis live in small cottages. Others hav fairly large houses. Among the advanced and literat classes like the Anavil Brahmins, the Banias, Mahomme dans, Parsis and Christians and a large number of Kolis the houses are covered with local tiles. Eight of thes houses are roofed with Mangalore tiles. These house resemble more those found in cities. Even in this cas only a few have cattle-sheds away from the dwellin place of the owners. A majority of these stay in th village site. Some, however, who originally dwelt o their farms in the falias are found separated from thi group. A large number of Kolis reside along with th Kaliparaj in the falias. It is interesting to note tha some of these have imitated their Kaliparaj neighbour e.g. they have a structure attached to their dwellings fo keeping water-pots.

*Renting of houses* : Renting of houses is rare in thi village. However, a few instances were found in whicl

houses were rented. In one case the rent, for a tiled house about 400 sq. feet in area, was Rs. 8 per mensem. A few cottages were rented at Re. 1 per mensem. The rents are paid mostly in kind or in terms of manual labour and vary with the size and quality of the house.

*Size of Houses*: The following approximate data about the size and quality of the houses were obtained at the time of taking our house-to-house census:

| Size of house | Thatched | | Roofed | | Total |
|---|---|---|---|---|---|
| Over 5000 sq. ft. | — | + | 5 | = | 5 |
| From 2000 to 5000 sq. ft. | 9 | + | 17 | = | 26 |
| ,, 1000 to 2000 ,, ,, | 44 | + | 32 | = | 76 |
| ,, 500 to 1000 ,, ,, | 91 | + | 18 | = | 109 |
| ,, 200 to 500 ,, ,, | 108 | + | 4 | = | 112 |
| ,, 100 to 200 ,, ,, | 75 | + | — | = | 75 |
| Below 100 square feet | — | + | — | = | — |
| *Total* . . | 327 | + | 76 | = | 403 |

We shall now proceed to deal with what may be called 'purely personal possessions.' Though it is difficult to have an exact statistical measurement for them, they have their place in a realistic study of a village.

## UTENSILS AND FURNITURE

Brass utensils are used by many families of the higher class, but earthen vessels are used for storing grain. A majority of the Ujaliparaj use earthen vessels as a rule. However, in every house one or two utensils of brass are found in use. The Kaliparaj families too, use earthen vessels extensively. Yet in a good many families we find one or two bronze utensils and a brass bucket as a novelty. These are indications of the multiplying wants of these simple folks.

Furniture, in the real sense of the word, is rare. A few chairs and small tables are visible in the houses of high class families like those of Brahmins, Banias and Parsis. Cots are found with a good number of families of both the races. The usual custom, however, for the

majority of the Kaliparaj and some portion of the Ujaliparaj like Dheds, Bharwads and a few others is to sleep either on bare ground or on a simple mat. It is interesting to note that the average Kaliparaj often prefers to sleep on the heap of straw in his yard to lying in his cottage.

Deitz lamps are used only by high class families. Kerosene lamps, usually of cheaper make, are in general use. The use of castor oil in small earthen vessels with a number of wicks, is fast disappearing among both sections of the population.

## ORNAMENTS AND CASH

Almost all inhabitants of the village from the richest to the poorest seem to be fond of ornaments. Ornaments are given a status, as it were, in social customs like a marriage ceremony, when ornaments of a fixed value have to be given to a bride. It may almost seem that the fondness of the average villager for ornaments is only surpassed by his love of drink.

There is, however, one justification in the present state of affairs for keeping some capital invested in ornaments. They serve as a useful and ready means for borrowing a petty loan at any odd turn of the season. In this village, as elsewhere in South Gujarat, there are what are called 'Janasudhar' sowkars, i.e., money-lenders who make petty loans only on the security of ornaments. Even the professional money-lender in modern days makes himself doubly sure, by keeping as security, the ornaments of the borrower who is a notorious defaulter. This shows that ornaments serve the same purpose to the village as Government securities do to modern banks. They are a reserve for ready money, and can be tapped at any moment.

This partial explanation of the necessity of keeping a few ornaments as fluid resources need not be taken to be a general defence of investing one's savings in ornaments.

The ornaments usually seen on the body of an average Kaliparaj woman consist of :

| | | Approximate cost Rs. | As. | Ps. |
|---|---|---|---|---|
| (i) | about 10 to 12 bangles of brass . . . | 1 | 4 | 0 |
| (ii) | about 12 to 16 anklets of brass . . . | 1 | 8 | 0 |
| (iii) | a number of necklaces of false pearls . | 0 | 4 | 0 |
| | *Total* | 3 | 0 | 0 |

Thus the ornaments usually worn by an average Kaliparaj woman cost only about Rs. 3. Some women, however, of a comparatively well-to-do class wear in addition a silver necklace which they call Kantla, costing from Rs. 10 to Rs. 15 and a silver armlet costing from Rs. 15 to 20. These ornaments are given to them as a dowry.

One interesting thing may be noted here. A few women of the well-to-do class have replaced brass anklets by silver anklets. This is a change worthy of praise for brass anklets are useless even to pawn. This change is due to one of the administrative orders of 1919-20 of Mr. Shivadasani,[1] who was an Assistant Collector in the Southern Division of the Surat District. This instance shows how administrative machinery, if well designed for the betterment of the people, can expedite social and economic reform. Let us now consider the *cash* found in the village.

The average Kaliparaj is proverbially short of cash. Some well-to-do families, two generations ago, we were told, used to hoard some cash buried underground. For the last two decades, the people are not aware of any such instance, but during the course of our house-to-house enquiry we found that two Kaliparaj men had buried a few rupees under ground, the amount of which they were unwilling to disclose.

Silver and gold ornaments are not a rarity with the high class and well-to-do families among the Ujaliparaj.

1 Now a member of the Bombay Legislative Council.

The majority of them, however, wear silver ornaments. Glass bangles are in daily use among a large section of the women of this group. Males generally do not put on ornaments except a 'Kadi' or ringlet in their ears or a ring on their fingers. Boys are adorned on some festivals with gold armlets and girls with bangles, ear-rings and silver anklets.

So far as actual cash is concerned, only a few big landlords, including the money-lenders, keep cash. A few Koli and Mahommedan teachers, it is said, invest some portion of their cash salaries as deposits with one of the money-lenders. But as soon as these savings accumulate to a pretty big sum they either purchase new land or build a new house. Very recently an intelligent Koli farmer borrowed a loan from a money-lender for celebrating his son's marriage. This typical case shows that farmers do not keep large amounts of cash but invest it in land or houses.

## INVESTMENTS

Modern methods of investment are absolutely unknown to the Kaliparaj. Of the Ujaliparaj only two were found to possess insurance policies and shares of a few industrial concerns. It usually happens in such villages that as soon as a man accumulates a small amount of money he invests it in money-lending, or in land, or houses. However, it may be noted that a few widows of high class have deposited the money realised from the sale of their ornaments, with the local Co-operative Credit Society.

The deposits of the members of the Society can be regarded as an investment of modern type. But unfortunately, it is not due to voluntary savings but to one of the bye-laws of the Co-operative Society enforcing a member to deposit 10 per cent. of the total sum he borrows.

Thus, except in a few cases the people have little cash resources or capital fund. The high state of indebtedness,

of the majority of the people, as we shall see later on, is itself an incontestable proof of lack of capital resources.

## MAIN CONCLUSIONS

We may now summarise the main conclusions to be drawn from this chapter as follows :

(i) The houses of the majority of the people are mere huts.

(ii) Though luxuries (from the villagers' standpoint) like a few chairs, cots, crude lanterns, utensils and some ornaments are found to be in use in the village, the hoardings of which we hear so often, are practically nil,

CHAPTER—X

# AGRICULTURAL LABOUR.

## INTRODUCTORY REMARKS

One of the principal features of the economic life of the people, namely, capital resources, has already been examined in the last two chapters. In this chapter we propose to study another equally important feature—agricultural labour. At first sight it may appear that the existence of a problem of agricultural labour in a village, where peasant-proprietors dominate, is an anomaly. But it is necessary to remember that, as already stated, there is a section among these peasant-proprietors, comprising those who act only as managers of their farms and a few others, who usually work with the help of hired labour. Though these landed proprietors form only a small proportion of the whole cultivating class in the village, they create a problem, none the less real and important, which demands a treatment wide enough to justify a separate chapter. This minority consists of farmers who have large holdings (or else they cannot engage labourers) and who constitute the well-to-do class of the people. If any agricultural reform is to be introduced it is through this minority that we can hope for it. Regarding the acuteness of the labour problem which this section of the community feels, our village is representative of the whole of Gujarat[1] and makes an instructive study.

1 Cf. "There is a seasonal shortage of labour in Gujarat......In most cases, cultivators are the greatest sufferers". Memorandum submitted to the Royal Commission on Indian Agriculture by Rao Saheb B. M. Desai, Deputy director of Agriculture Northern Division also Cf. memorandum to the same body by Rao Bahadur B. R. Naik, M. L. C.

Southern Gujarat, however, presents another side of this labour problem, the 'Hali system.' Her agriculture is mostly[1] carried on with the help of Halis. "The Hali system prevailing in Surat District and parts of Thana District," writes the Collector of Surat, "is now dying out, owing to labourers leaving the service of their masters shortly after their marriage and before the debt is paid up."[2] In this specific aspect of the labour problem of South Gujarat too, Atgam affords an inviting scope for study.

From the above remarks we have already had glimpses of the nature of this problem in South Gujarat. The main cause of the problem is scarcity. We shall also consider the other reason, namely, the growing inefficiency of hired labour.

## SCARCITY OF LABOUR IN ATGAM

We shall first examine the causes that are responsible for the scarcity of labour in the case of the village under survey. From a minute enquiry on this subject, both in its historical and present day aspects, we feel that the following are the principal causes of this scarcity :

(1) The principal crops of this area, as we have seen, are paddy and sugarcane. Both necessitate a large number of labourers in some of their processes of cultivation. For instance, in the season of transplanting paddy, planting sugarcane or manufacturing gul out of the latter, there is a great demand for labour. In other words, the nature of these two crops is such that there is a great seasonal demand for labour every year.

(2) This scarcity of labour has been augmented because some farmers have given up manual work. In this village the Anavils, with rare exceptions, have retired from

1 Out of 84302 Halis found in the Presidency in 1921, 57010 or about 67 per cent belong to Surat District. P. 223, para 625, Census of India, Vol. VIII, Bom. Presidency, Part I. This shows to what extent the agricultural organization of South Gujarat is based on the Hali system.

2 Land Revenue Administration Report, 1924-25, p. 39.

field-work long ago. In recent years a few others have followed in their footsteps. Of the latter a good many are Mahommedans and Kolis—all young men—most of whom have taken up employment as teachers in the neighbouring villages and a few have gone away to distant places for employment.

(3) This increase in demand is again made greater by the following fact. The joint-family system in the village has given way in a large measure, and has been replaced by individual families. In consequence, the individual families of to-day require the help of outside labourers to work in their fields whereas, in the days of joint-family system, such outside labour was not needed.

(4) Moreover, the avenues of earnings for rural labour have increased in the urban areas during the last thirty years. Whereas, formerly, few people in Bulsar and Surat required the services of patawalas, ghariwalas, syces or domestic servants, to-day it is otherwise. In addition to this demand for domestic servants, there is a demand for labour from industrial centres like Kalyan where bricks are manufactured, or from Dharsana for the salt-pits.

Thus, on the one hand the demand for labour has increased in different ways, and on the other hand the supply has decreased because of the following reason :

Dublas form a proverbially labouring community in South Gujarat. During recent years some of them have adopted the practice of purchasing small pieces of land with a few savings made in cities to which they often migrate.[1] In this village during the last twenty years, out of 53 families of the Dubla community, eleven have purchased land. Of the rest, fifteen cultivate land on kind-rent ; eight migrate to different places in the off season in

1 In this respect, Atgam is representative of South Gujarat. Cf. "Agricultural labour in getting scarce and dear on account of the tendency on the part of the labouring classes either to take up land for themselves for cultivation or to emigrate to industrial centres where high wages are easily obtainable". p. 37, Land Revenue Administration Report, 1923-24.

order to supplement their earnings; and the remaining nineteen have been engaged by a few landowners of the village as Halis or permanent labourers. Thus only those who migrate in the off season and return in the monsoon serve as the fluctuating labour supply. All others are occupied either with work on their own fields or on their masters' in the season, when there is a great demand for labour from the general class of landlords.

The above discussion does not exhaust the whole story, because, as we have said above, the labour problem of the village, like that of South Gujarat, is twofold due to the existence of what is known as 'Hali system.'

## THE HALI SYSTEM

The word 'Hali' literally means 'one who handles the plough or Hal.' The system by which a labourer is engaged by others for performing field operations is called the Hali system. In actual practice the system works thus. A poor member of the Dubla community and, for the matter of that, of the whole Kaliparaj of whom Dublas are only one sect, on coming of age, approaches one of the big landlords of his village, or of some neighbouring village, for a loan to finance his marriage. In return for the loan, as he has little landed property to offer as security, he gives a verbal promise to serve the creditor till his debt is repaid. This promise is usually renewed every year. In the majority of cases the labourer is never able to repay the loan all his life, for the simple reason that even if he works for all the days of a year, he cannot repay the full amount, as he has to borrow corn from his master every now and then to maintain himself and his wife and children. The natural result is, that, in fulfilment of his promise, he has to serve the master for his whole lifetime.

Having thus studied the general nature of the labour problem of this village, we shall now pass on to an examination of some of its important aspects.

THE RATE OF WAGES

For the sake of clarity and precision we shall discuss this topic under two heads :

(i) rate of wages for free labour ;[1] and
(ii) rate of wages for Halis.

(i) *The rate of wages for free labour* : There are as many difficulties in calculating the average rate of wages in the case of a free labourer as there are different methods of making payment. The following are some of the principal methods of paying wages prevailing in this village :

(a) Usually a labourer is paid in kind. In certain seasons, however, like the time of harvesting grass or cutting babul in December and January, he is paid in cash. Now it is very difficult to calculate in money, the wages he receives in kind per annum (if the labourer knows them at all), as the price of the commodity in which he is paid fluctuates from time to time.

(b) In certain seasons again, he receives a day's wage partly in kind and partly in cash. For instance, in the season of manufacturing gul out of sugarcane, besides taking his day's wage, he is allowed to take away one or two bundles of sugarcane at the end of the day for which he works. In some cases he receives also a small quantity of gul from the farmer at the end of the manufacturing process. Similarly in the season of harvesting paddy he is allowed to take away a small bundle of paddy sheaves. These extra wages cannot be ignored while calculating the average rate of wages.

(c) Sometimes a group of labourers undertake to work on piece wages. They enter into a verbal contract with a big farmer to finish a piece of work e. g. digging a field, with deep-rooted grass, on payment of a lump sum. This amount varies with the persuasiveness of the employing farmer and the intelligence of the labour-

1 The phrase 'free labour' is used to distinguish the labour of an independent or free worker as against the labour of a Hali.

ers and several other factors. If this lump sum is spread over the number of days this group works, and if the total strength of this group is taken into account, the average rate of wages per day may vary from 4 to 8 annas. The rate of wages in this case will obviously vary with the rapidity and energy with which the group works. Thus, this fluctuating element makes it difficult to have a statistical measurement of the average rate of wages for the village as a whole.

(d) Again, in this village there obtains a peculiar system of advancing petty loans to needy labourers in the off season, and demanding work from them in the busy one on repayment thereof. In one such typical instance we found that a labourer was made to work for five days for one rupee. This means that the average rate of wages he received was 3 annas 2 pies per day. Adding 4 pies by way of interest on the rupee advanced, it would come to 3½ annas. It may be noted that this was the season of harvesting grass when the usual rate of wages prevalent varied from 5 to 8 annas.

In view of these different methods of payment, it is obvious that it is extremely difficult to arrive at an average rate of wages for the village as a whole. However, on minute enquiry, we found that the average rate paid in the ordinary season is 4 annas for a male and 3 annas for a female. Taking the seasonal rise into account, 5 annas for a male and 4 annas for a female may be safely taken as the average rate of wages. These are the rates we have adopted in calculating the estimates of expenditure for crops as also for estimating the receipts from labour to individual families deriving income from labour.[1]

(ii) *The rate of wages for a Hali* : The determination of the average rate of wages in this case is not as difficult

1. We may note that we had to go through an elaborate process for calculating the receipts from labour to labouring families, as the heads of many of them could not give us reliable estimates of the total wages their families got per annum. For an explanation of this method vide Appendix VIII.

as in that of a free labourer. Though there are slight variations in the method of making payments to Halis followed by different masters, who are called 'Dhaniamas,' the similarity overshadows the difference.

It is a usual practice for a Hali to get his wages in kind. When he requires cash, he gets it in three ways : (a) He may take cash wages for a few days, for which period, the master would stop his allowances in kind. (b) He may borrow a petty loan of a rupee or two from his master with a promise to return it in terms of additional labour. (c) He is allowed by his master, when the latter does not require his services, to work as a farm-labourer on a neighbour's fields and get cash wages.

As regards wages in kind, he does not receive one and the same commodity throughout the year. He receives either paddy, or rice, or nagli, or kodra. The following figures show the usual way in which these grain-wages work out :

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| One | maund | of | paddy = | 9 | days' | wages |
| ,, | ,, | ,, | rice = | 16 | ,, | ,, |
| ,, | ,, | ,, | Nagli = | 16 | ,, | ,, |
| ,, | ,, | ,, | Kodra = | 8 | ,, | ,, |

Assuming that he works for 360 days per year, the Hali receives 40 maunds of paddy or 22½ maunds of rice or nagli or 45 maunds of Kodra.[1] Besides these grain-wages, he is given every year two dhoties, two waistcoats, a cap and a pair of shoes. He is also allowed from time to time a little tobacco raised on his master's farm and permitted to enjoy a few holidays. He is occasionally given toddy in summer and country liquor in the monsoon. If his master is an Anavil Brahmin, he is usually entrusted with the duty of accompanying his master's daughter to her husband's house. On this occa-

1. It is necessary to remember that besides this amount of grain he is given every day a loaf of *nagli weighing about* ¾ of a seer and some vegetables or pulses. This increases the quantity of corn he actually receives from his master.

sion he generally receives from the father of the son-in-law a few coppers and a small quantity of corn.

The wife a Hali, as a rule, serves in the house of her husband's master. Her usual duties are to fetch water from the well, cleanse the vessels and occasionally grind corn. Besides this, she has to cleanse the stable every day and remove the dung from the shed to the manure-pit. For these services she is paid 3 to 6 rupees per mensem, and given a pair of garments worth about Rs. 8 per annum. In the transplanting and reaping season, besides doing housework she works as a farm-hand on the field of her master and receives regular wages.

The son of a Hali, if old enough, is engaged by the master as a herdsman. He is expected to take the cattle every morning out to graze on the common pasture or in the compounds reserved for them. Every day the boy returns at about two in the afternoon, and goes back at about three with the cattle to return after sunset. Sometimes, however, when he takes the cattle a very long distance to graze he does not return for the recess but comes back only in the evening. For rendering this service he receives a loaf along with some vegetable or pickle every morning and Rs. 12 per annum in cash.

Thus regular employment is provided to the Hali's family. Over and above this, he is allowed the usufruct of a piece of land varying from 3 to 7 gunthas without paying land revenue, and also allowed to erect a cottage on his master's land without being charged any rent for it.

Assuming that a Hali works for 360 days, and taking into account all payments made to him in kind and cash, the following will be his receipts as wages per annum :

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| (a) | 7 maunds of nagli @ 1 loaf of nagli-flour given every day, weighing $\frac{3}{4}$ seer . . | 15 | 0 | 0 |
| (b) | Some vegetable or pulse given with each loaf per day @ 0-0-3 each . . . . | 5 | 8 | 0 |
| (c) | 40 maunds of paddy @ one maund for nine days' wages @ 2-0-0 per md. . . . . | 80 | 0 | 0 |

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| | *Brought forward* . | 100 | 8 | 0 |
| *(d)* | Clothes and shoes . . . . . . . . . . | 13 | 8 | 0 |
| *(e)* | Tobacco . . . . . . . . . . . . . . . | 3 | 0 | 0 |
| *(f)* | Occasional draughts of toddy and liquor . | 3 | 0 | 0 |
| *(g)* | The usufruct of the land given to him . | 18 | 0 | 0 |
| *(h)* | The rent of his cottage . . . . . . . . | 12 | 0 | 0 |
| | *Total for the year* | 150 | 0 | 0 |

In this income we have not included the price of medicines given to him or to any member of his family in case of illness. Nor do we count the interest on the principal he borrowed from his master at the time of his marriage. It may be noted that neither the interest nor the principal is ever returned. If the payments made to the other members of his family are added to this wage-bill, the figure of annual receipts by way of wages will mount up to a much higher figure than Rs. 150. But ignoring all these considerations and taking into account only Rs. 150 as his annual receipts as wages, the rate of wages works out at 6 annas and 8 pies per day. Thus it is obvious that the average rate of wages paid to the Hali is higher than that paid to the free labourer.

Having discussed the average rate of wages both for the free labourer and the Hali, we shall now pass on to a discussion of the average number of hours which a labourer works.

## HOURS OF WORK

The average number of hours which a free labourer usually works at present comes to six, as shown below :

| | Number of hours. |
|---|---|
| He goes to work after the morning meal at about 9 o'clock and returns home at about 12 o'clock . | 3 |
| He again goes to the field at about 3 p. m. and works there till about 6 p. m. . . . . . . . . . . | 3 |
| *Total number of hours per day* | 6 |

A hali is expected to work from 7 A.M. to 6 P.M. with an interval of 2½ hours between 12 noon and 2-30 P.M. Thus he is made to work for 8½ hours.

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| | *Brought forward* . | 100 | 8 | 0 |
| (*d*) | Clothes and shoes . . . . . . . . . | 13 | 8 | 0 |
| (*e*) | Tobacco . . . . . . . . . . . . . | 3 | 0 | 0 |
| (*f*) | Occasional draughts of toddy and liquor . | 3 | 0 | 0 |
| (*g*) | The usufruct of the land given to him . | 18 | 0 | 0 |
| (*h*) | The rent of his cottage . . . . . . . . | 12 | 0 | 0 |
| | *Total for the year* | 150 | 0 | 0 |

In this income we have not included the price of medicines given to him or to any member of his family in case of illness. Nor do we count the interest on the principal he borrowed from his master at the time of his marriage. It may be noted that neither the interest nor the principal is ever returned. If the payments made to the other members of his family are added to this wage-bill, the figure of annual receipts by way of wages will mount up to a much higher figure than Rs. 150. But ignoring all these considerations and taking into account only Rs. 150 as his annual receipts as wages, the rate of wages works out at 6 annas and 8 pies per day. Thus it is obvious that the average rate of wages paid to the Hali is higher than that paid to the free labourer.

Having discussed the average rate of wages both for the free labourer and the Hali, we shall now pass on to a discussion of the average number of hours which a labourer works.

## HOURS OF WORK

The average number of hours which a free labourer usually works at present comes to six, as shown below :

| | Number of hours. |
|---|---|
| He goes to work after the morning meal at about 9 o'clock and returns home at about 12 o'clock . | 3 |
| He again goes to the field at about 3 p.m. and works there till about 6 p.m. . . . . . . . . . . | 3 |
| *Total number of hours per day* | 6 |

A hali is expected to work from 7 A.M. to 6 P.M. with an interval of 2½ hours between 12 noon and 2-30 P.M. Thus he is made to work for 8½ hours.

This discussion of the rate of wages and hours of work leads us to consider the problem of labour from the point of view of efficiency. During the course of our enquiry on this subject we were supplied by some of the intelligent big land-owners of the village with the following statements, which if true, would show a growing inefficiency of labour.

(i) About a generation ago an average labourer used to cut within one hour grass sufficient for making 300 bundles, each bundle weighing about $1\frac{1}{2}$ seers. Now an average labourer cuts grass sufficient for binding only 100 bundles, each bundle weighing about $\frac{3}{4}$ seer.

(ii) Formerly he used to bind 300 bundles of grass per hour ; now he does only 100.

(iii) Formerly he could cut per day babul wood weighing 20 maunds ; now he cuts a quantity weighing only 1/3rd of this per day.

(iv) Formerly he used to dig out 200 feet of rice land per day ; now only 100 feet.

(v) About thirty years ago the number of hours per day for which an average labourer used to work was 10 ; now it is only 6.

On consulting those who were not directly interested in the problem, we felt that there was a substantial element of truth in the complaint made by the big farmers. Having ascertained the extent of truth in the complaint we tried to probe the causes. The causes of this phenomenon described to us by the landlords are :

(1) The vitality of the average labourer has decreased, because of his habit of migrating to places where he is supplied with food of low quality and has more opportunities to take to liquor.

(2) The average labourer has become dishonest and insincere in his work, thanks to his visits to external places where he fosters these habits.

An impartial analysis of the problem, however, shows that the real causes of the phenomenon are different from those mentioned above. We think that the following

facts present a correct explanation of the state of affairs :

(i) The rate of wages has risen more than three times[1] what it was in 1902. This has a psychological effect on the mind of the employer who thinks that the labourer does not put forth work in proportion to the wages paid. It is however necessary to remember that prices have more than doubled since 1902. The complaint, therefore, of the landlord is justified only to the extent to which there is a greater rise in the level of wages than in that of prices.

(2) No doubt emigration to external areas does influence the physical and mental powers of the labourer. Though he loses vitality when outside, he recoups it when he returns home. But the habit, which he contracts when outside, of working for a fixed number of hours without being reprimanded every now and then to accelerate his speed is not forgotten. When he returns to the village he does not like to revert to the old habit of working from early morning till late in the evening. He militates against such discipline if enforced by any employing farmer. This accounts for the labourer's insolence and the consequent complaint of the farmer about the growing inefficiency.

(3) By coming into contact with literate people of a high status in cities where he serves as a domestic servant, the labourer has developed a desire to wear better clothes, eat a little richer food and enjoy more leisure than he used to do before. Moreover, he has become conscious of the fact that there is a great demand for him in urban areas where he can receive a higher rate of wages.

1. The earliest figures of wages of field-labourers available for the Bulsar Taluka are for the year 1902. Taking it as the basis, the following index numbers show at a glance the extent of rise in their wages :

| Year. | Index number. |
|---|---|
| 1902 | 100 |
| 1914 | 120 |
| 1926 | 320 |

This explanation also holds good in the case of the average Hali, who is often allowed to emigrate to industrial areas in the off season, when his master does not require his services and wants to effect a saving of so much wages, which he must pay even without exacting any work, if the Hali is kept at home. In the case of the Hali, there is one additional reason why his output of work is not larger than that of the free labourer. It is that, as he is guaranteed every day's food whether he works or not, he becomes irresponsible and indifferent in his work.

Whatever be the explanation of the inefficiency of labour, the facts remain that the number of hours has decreased from 10 to 6,[1] and consequently the output of work per day has decreased while the rate of wages has greatly increased. This adversely affects agriculture which is the principal industry of rural areas and calls for some remedy.

## REMEDIES

In suggesting remedies we should remember that the problem of the village—which is generally true of South Gujarat—is twofold : one is of the free labourer and the other of the Hali.

*Regarding free labour* : In the first place we should not forget that the tendency of the rural people to emigrate to urban areas is universal and cannot be checked by any piece of Government legislation. Nor can the problem of labour be solved by lodging repeated complaints of the growing scarcity and inefficiency of labour. The real remedy lies in

(1) The resumption of actual field work by those who have abandoned it ; this will decrease the demand ;

(2) the introduction of the system of paying piece-wages ; this will tempt the labourer to put forth more work than he does at present ; or

1. Cf. Report of an enquiry into Agricultural Wages in the Bombay Presidency, 1924, paras 32 and 33.

(3) the introduction of a system of giving the labourer a fixed share in the farm-produce ; this will induce him to stay in the village.

*Regarding the Hali-system* : In view of the fact that the agricultural organization of South Gujarat is mainly based on this system, we shall first criticise the system and then suggest remedies.

This system has been the target of a good deal of bitter criticism from several quarters. A Hali is regarded as a freeman *de jure,* but a serf *de facto.*[1] On the ground that this is a system based on the negation of the liberty of the individual, it is strongly pleaded that it should be abolished as early as possible.

Judging from the facts that we have already set forth in the preceding pages, it is obvious that the average rate of wages paid to the Hali is higher than that paid to the free labourer, while the actual output of work per day by the former is only equal to, if not less than, that of the latter, as the former, unlike the latter, is an irresponsible fellow. Thus evidently the Hali-system is uneconomical and inefficient.[2] Though the big farmers who keep Halis know this, they cannot avoid it in view of the growing tendency of labourers to emigrate to urban areas. Thus the system is regarded as a necessary evil.

We think that far from solving the problem, an immediate abolition of this system by legislation will make matters worse. It is necessary to remember that the big farmers, who have not, for a long time, been accustomed to fieldwork, cannot resume it all at once. If the system is removed by a stroke of the pen, it will give a shock to the agricultural organization of South Gujarat which, as already stated, is mainly based on this system.

1 Cf. "Halis are freemen, *de jure,* but serfs or slaves *de facto*", p. 223, Para 625. Census of India, Vol. VIII. Bom. Presidency, Part, I.

2 Cf. "Considering all things, we are of opinion that this system is both uneconomical and inefficient and that the people of the Taluka should take steps to do away with it as soon as possible". P. 20, Pardi Taluka (Surat Dist.) Economic Enquiry Committee's Report.

On the other hand, it should not be continued indefinitely, firstly because it offends our sense of justice and fair-play to the labourer ; and secondly because agriculture which is largely carried on with the help of mortgaged labour can never prosper.[1]

The solution,[2] that is suggested by some, is that the system should be replaced by what is known as the 'card-system'. This system means that a labourer who is in service of one master cannot be legally engaged by another, unless he shows the card of his first master permitting him to seek another's service.

We are afraid that this system, instead of making the labourer free will tighten the hold of the master. What the immediate solution should be, is extremely difficult to suggest. We believe that the remedies we have suggested in the case of the free labourer are likely to solve this problem too, for if free labour is easily available, none will like to resort to the uneconomical and inefficient Hali-system.

## CONCLUSIONS

The following are the main conclusions of this chapter :

(i) The efficiency of the agricultural labourer has decreased in spite of an increase in wages, making agriculture a more costly occupation.

(ii) The real solution of the problem lies in the resumption of fieldwork by those who have retired from it, and in the introduction of a system of piece-wages or in offering the labourer an inducement in the shape of a fixed share in the produce of the farm.

1. Cf. The idea is expressed in Gujarati by the Economic Enquiry Committee. appointed by the Swarajya Ashram at Bardoli to enquire into the question of an enhancement in the land assessment of the Bardoli Taluka : it runs :

"सुरत जिल्लामां मोटे भागे भाडुती खेती थाय छे आ प्रथा (हाळीपद्धति) नाबूद कर्या विना सुरतजील्लानी खेतीनो उद्धार अशक्यवत् छे."

2. Vide Memorandum submitted by Rao Saheb B. M. Desai to the Royal Commission of Indian Agriculture.

## CHAPTER—XI

# MARKETING ORGANISATION OF THE VILLAGE

### INTRODUCTORY REMARKS

With the solitary exception of Dr. Lucas's work, none of the village studies hitherto made include a discussion of this topic. Even Dr. Lucas has referred to the problem generally, and has not attempted a detailed discussion of the marketing organisation of Kabirpur, the village he studied.

The reason for our departure is not far to seek. Marketing of agricultural products has assumed a great importance in our country with the commercialisation of agriculture. The practice of raising special crops which the farmer exchanges for food-stuffs in a market, has been gathering force for the last thirty years. This specialisation in farming has made marketing a matter of vital importance to the farmer. His prosperity now depends not only on an increase in the rate of production but also on the capacity to dispose of his goods at an advantage.

This very specialisation in raising commercial crops, which are exchanged for necessaries, has given importance to the other aspect of marketing, namely, the purchase of necessaries.

The term 'marketing' as used in modern economic treatises has a wide connotation. It refers to all types and methods of marketing, ranging from the most primitive marketing of a product as an individual unit at the house of the producer, to the most modern co-operative or capitalistic organization requiring sampling and grading of commodities for sale.[1]

1. Vide Hibbard's Marketing Agricultural Products, pp. 20-28.

The marketing organization of our village, as viewed from this broad outlook, makes an extremely interesting study. We have divided this chapter into two sections. The first embraces a general discussion of marketing in both its aspects, namely, marketing of necessaries and of farm produce. The second deals with a special detailed discussion of the marketing methods followed in this region with regard to principal articles of export. This division is made with a view to emphasize the greater importance of marketing of farm produce than of necessaries, in the present state of the economic development of our rural areas. It is easy to understand that once the farmer's purchasing power is augmented and his standard of living raised, he will be tempted to devise *means for making his purchases more efficient and economical.*

## SECTION I.

## A GENERAL DISCUSSION OF MARKETING ORGANISATION

Marketing is either direct or indirect. The former hinges mainly on the place at which marketing is done, since the producer and the consumer must meet often, or at least occasionally, to settle the conditions of their bargain. It can, therefore, be conveniently divided into four groups :—

(1) At the home of the producer,
(2) At the home of the consumer,
(3) At the market place,
(4) Transactions between buyers and sellers staying far apart through the medium of post and rail.

These may be called direct forms of marketing as against indirect ones with which we shall deal later.

### DIRECT MARKETING

(1) *At the home of the producer.* In the village under study, commodities most usually sold in this market are milk, sour milk, curds, ghee and dried fish. This primi-

tive type of marketing is confined mostly to the village site, which is inhabited by a large number of the Ujaliparaj most of whom use these commodities. In the falias there are no shops. The Kaliparaj unlike the Ujaliparaj do not as a rule consume ghee or curds. Nor do they usually take tea which may require them to purchase milk.

In the village site one often finds a boy or a girl passing on the road with a brass pot in hand. If asked, he or she would say, "I am going to purchase milk for tea". Tea has become a necessity to the members of the fair races in this village. Equally frequently one finds a Koli woman going from house to house with an earthen pot in hand. She is in search of sour milk.

In this village only a few Ujaliparaj families prepare ghee out of milk of milch-cattle, which commands a sale value. As a rule, the Kaliparaj prepare ghee out of goat's milk. This ghee does not command as wide a market as the other mentioned above. People generally go to the house of the producer to purchase ghee. But for the last few years some of these people have commenced to market it abroad to Bulsar and other places. The volume, however, of the ghee exported from this place is very small as compared to that sent by the Kanbis of Kalwada and Pitha, villages only three to four miles to the south of Atgam.

Besides these dairy products, dried fish forms one of the usual commodities sold at the producer's house. Sometimes, this too is sold by the fisherwoman wandering from the house of one consumer to that of the other. The Kaliparaj often catch fish in the rainy season from the rivulets, which abound in them. Only in winter and summer some of them are found making purchases of fish at the fisherman's house in the village site. With the exception of Brahmins, Banias, and a few others, all Ujaliparaj castes eat fish. It is a common sight in the evening to see one boy after another, or at times a host of them crowding at one of the fisherman's doors to purchase fish.

(2) *At the home of the consumer.* Another way of direct marketing is for the producer to go to the consumer to sell the produce, but this does not seem to be much in vogue in the internal economy of the village. However, in its marketing relations with the neighbouring villages, we find this type of marketing. Occassionally, cultivators of other villages arrive to sell chillies or onions or brinjals in the off season. Similarly, soon after the harvest, Banjaras come here with huge bags of nagli loaded on the backs of donkeys or bullocks. This grain has a wide market in this place as almost all Kaliparaj people use this grain as a staple food. They invariably consume it in the form of loaves. For the last few years, we even see some itinerant merchants occasionally coming to the village with a number of second-hand coats and shirts perhaps purchased from a city like Bombay. Borah hawkers are sometimes seen, moving from house to house with huge bundles of glass bangles.

When one notes all these petty things one cannot but reflect that though the average villager lives far away from the "maddening crowd's ignoble strife", he is nonetheless affected by the multiplying wants of the town-dweller.

(3) *At the market place.* This third way of effecting direct sales is not quite common in this village. There is only one permanent market at Khergam. This is sometimes resorted to by some of the inhabitants of the village for the sale of their vegetables. On a few festivals a 'hat' or a bazar is held at Kochwada, a village about three miles to the south of Atgam, where a few farmers of the place go with vegetables or with fruits, say, plantains. At times under the tamarind tree opposite the Local Board School in the village site, some villager sets up a temporary shop to sell a few vegetables, such as onions, chillies or garlic he may have raised in a corner of his compound.

(4) *Transactions between buyers and sellers by post and railway.* This is too modern a method of marketing

to be found in extensive use in a village. However, during the course of our enquiry, we came across one or two cases where the growers of mango-fruits send their mangoes directly to the consumer in Bombay or Surat or elsewhere by railway parcel.

Having thus dealt with the different forms of direct marketing we shall pass on to the consideration of indirect marketing.

## INDIRECT MARKETING

The most usual types of indirect marketing are :—

(1) Purchase from, or sale to, a middleman.

(2) Purchase or sale through a middleman.

(1) *Purchase from, or sale to, a middleman.* From the standpoint of the Atgam dweller as a consumer, this is the most common way of purchase. There are two grocer's shops in this village. Both of them are managed by Mahommedans.

The following result of a stock-taking done by us on the 13th May 1927 at 5 p. m., shows the nature of commodities sold by one of the grocers in the village.

| | Kind of Commodity | Quantity Ms. | Srs. | Value Rs. | As. | Ps. |
|---|---|---|---|---|---|---|
| 1. | Paddy | 126 | — | 204 | 12 | 0 |
| 2. | Tur-pulse | — | 20 | 2 | 8 | 0 |
| 3. | Rice | 2 | — | 3 | 8 | 0 |
| 4. | Wal-pulse | 1 | 10 | 2 | 8 | 0 |
| 5. | Wheet | — | 10 | 1 | 0 | 0 |
| 6. | Dang | — | 10 | 0 | 15′ | 0 |
| 7. | Wal-surti | — | 2 | 0 | 5 | 0 |
| 8. | Gram | — | 10 | 1 | 14 | 0 |
| 9. | Choti-pulse | 2 | — | 3 | 0 | 0 |
| 10. | Salt | 7 | — | 7 | 0 | 0 |
| 11. | Kerosine | (12 Tins) | | 48 | 0 | 0 |
| | *Carried forward* | | | 275 | 6 | 0 |

| Kind of Commodity | | Quantity Ms. | Srs. | Value Rs. | As. | Ps. |
|---|---|---|---|---|---|---|
| | *Brought forward* . | | | 275 | 6 | 0 |
| 12. | Sesamum oil | — | 20 | 7 | 8 | 0 |
| 13. | Castor oil | — | 10 | 2 | 8 | 0 |
| 14. | Sugar | 6 | — | 36 | 0 | 0 |
| 15. | Tea | — | 2 | 2 | 0 | 0 |
| 16. | Chillies | — | 10 | 3 | 2 | 0 |
| 17. | Tobacco | 5 | — | 75 | 0 | 0 |
| 18. | Condiments and spices | | | 1 | 4 | 0 |
| 19. | Eggs | 500 (Nos.) | | 18 | 10 | 0 |
| 20. | Coconuts | 12 ,, | | 1 | 2 | 0 |
| 21. | Khajur | 1 Md. | | 4 | 0 | 0 |
| 22. | Misc. things | | | 5 | 0 | 0 |
| | | *Total* . | | 430 | 14 | 0 |

A minute enquiry into the methods of purchase and sale and several allied topics revealed the following facts.

(i) This shopkeeper buys the commodities wholesale from Bulsar and Khergam. The average price at which he sells the commodity is a little higher than the cost he pays. The excess of market price over the cost price constitutes his earnings.

(ii) Regarding the methods of sale the Kaliparaj people make their purchases every day usually for cash. It is a common sight to see crowds of people standing at the shopkeeper's door asking for chillies or condiments, tobacco, kerosine or sesamum oil for a piece or two. In his dealings with the Ujaliparaj, he usually sells goods on credit and receives payment at the end of the year. As a rule, credit is not extended to the Kaliparaj, most of whom are spendthrifts. As soon as they get a few coppers, their first resting and recreation place will be the toddy or liquor shop.

(iii) Signs of barter are also visible. Occasionally a poor Dubla woman comes to his shop with a few eggs and receives in return salt, tobacco or chillies.

(iv) An inspection of his account book, showed that the shopkeeper had credit dealings with the majority of Dhed families belonging to the village and a few Kolis, Kanbis and Rajputs residing in the surrounding villages. It is interesting to note that the amount of credit given to Dheds is based on their earnings in Bombay, as domestic servants to Europeans.

Of greater importance than all this is for us to remember, that the main sources of the shopkeeper's profits are : (i) he gives his customers short weights and measures, and (ii) he keeps the retail price as high as possible. Thus, the farmer in whom we are interested, is hit hard by his purchases through the middleman.

The solution in this case lies in the development of a co-operative store [1] for the sale of sundries. The volume of business of such a store may be increased by adding clothes as a commodity to be sold. We found that the grocer, we examined, started his shop about seven years ago with a paltry capital of Rs. 200 borrowed from the local co-operative credit society.

We shall now study the other aspect of marketing, from the standpoint of the farmer as a producer. This is the usual method in which the bulk of farm produce is disposed of.—Almost all cereals and pulses are sold to middlemen at Bulsar or Khergam, or to one of the villagers, who does the work of a middleman. Even in the case of commercial crops with the exception of gul at times, this is the method adopted. Grass is almost invariably sold to a Mahommedan merchant at Dungri, a railway station about six miles to the north-west of Atgam. This merchant subsequently exports it to Bombay.

Besides the farm produce, there is an important article namely, eggs, which are often sold to an agent of some

1 While making this suggestion, we are conscious of the failure of the co-operative store at Gaderia, a village 9 miles to the south-west of Atgam. We must mention that the failure was due to lack of business knowledge on the part of its administrators. As its liquidator found out, the store contained articles which had no market in the locality concerned.

wholesale merchant. We have seen that there are about 2130 fowls in this village. Taking on an average that each hen lays about 30 eggs per year, of which 5 are reserved for hatching, 3 are wasted and 22 remain for sale, and assuming that of 2130 fowls 2000 are females, we get an estimated figure of 44000 eggs that are probably available for sale in this village per annum. If 24000 eggs are, as gathered from local sources, taken to be consumed in the village, about 20000, worth Rs. 312 at one pice per egg, can be exported. If this number is augmented by collecting eggs from some of the surrounding villages, we believe a co-operative egg sale society can be run on business lines with a profit to the farmer. We may note that a Mahommedan of Khergam is at present regularly sending to Bombay, by railway parcel, three to four big earthen pots each containing from 150 to 200 eggs, at intervals of every two or three days. This shows that our suggestion is not an unworkable proposition.

(2) *Purchase or sale through a middleman.* This is the other way of indirect marketing. Many Kaliparaj, as well as some Ujaliparaj cultivators, usually purchase cattle through a middleman.

This function of a middleman or a commission agent, is however, not regarded as a reputable source of earning because it generally lends itself to fraud on the part of the middleman, who may be influenced in favour of the party giving him a larger commission.

Selling through a middleman is generally resorted to in the case of gul, which is the product of the principal commercial crop of this village. No doubt, to all intents and purposes, the farmer looks upon the Bulsar dealer as the man finally resposible for the value of his produce. But this is not true, because the Bulsar dealer is invariably an agent of some outside merchant and therefore this would come under the category of sale through a middleman.

## CARE IN HANDLING GOODS

A few words about the care with which goods are marketed, are essential at this stage. We do not want to enter into an elaborate discussion of this topic. Suffice it to say that in this area, sales are made by the primitive method of handling individual units to the most modern one of grading. Grading is, however, done only in the case of Alphonzo mango-fruits when they are exported by the farmer direct to his broker at Bombay.

## SECTION II.

## MARKETING OF PRINCIPAL ARTICLES OF EXPORT

It need not be too often repeated that the more important problem, at present for the agriculturist is how best to market agricultural produce. We have already given a few general characteristics of marketing of cereals, pulses and commercial crops of this area. Now we propose to undertake a detailed study of the methods of marketing three main articles of export from this village, namely, paddy, gul and mango-fruits. Before doing so we shall give a brief history of marketing, in this village, which throws considerable light on the attitude of the peasant-proprietor to the importance of marketing.

*History of marketing in general.* It may be mentioned at the outset that though no records on this subject are kept by the government, or the people, we had the good luck to get the following detailed information from some of those who are conversant with the work of marketing as at present carried on.

In 1900 people knew very little of marketing as now understood. There was nothing like a systematic marketing of paddy or mango-fruits. The money-lender was all supreme. The usual practice was to hand over all exportable surplus produce to him, in repayment of debt.

In the case of mango-fruits, some people occasionally went to Surat to sell them. During recent years the number of Alphonzo trees has increased and is still increasing. The marketing of mango-fruits is becoming more systematic. A few intelligent farmers have even learnt the method of grading and packing this fruit. Paddy is now sold direct in the Bulsar market and not, as before, through the money-lenders. The marketing of gul is particularly interesting in its historical aspect.

Before 1915, it is said, great annoyance was caused by the up-country merchants (merchants coming from Northern Gujarat and Kathiawar) who came to this area to purchase gul. The village dalals were virtually forced to take them from place to place, though often they made no purchases, which would have entitled the dalals to some brokerage. Bulsar dealers, too, put them to great inconvenience. After a brief yet memorable struggle in 1917, the matter has improved considerably. We give below the origin and events of this struggle which clearly demonstrate that the illiterate cultivator is not ignorant of his economic interests and that he can rise to the occasion when necessary.

It was in the season of 1917 that one of the most flourishing money-lenders and gul-merchants of Bulsar, asked one of the farmers of Fanaswada, a village to the west of Atgam, to send his gul-pots to the Bulsar station at the latter's risk and responsibility. As will be clear from the description of the marketing of gul we shall presently give, this was a departure from the usual system and, if adopted, would have affected the farmer adversely. The farmer of Fanaswada boldly refused to do so. Thereupon the merchant did not purchase his gul. The matter spread far and wide, with the result that the farmers of Atgam and a few other surrounding villages, set themselves to discover the best method of selling their gul in case the Bulsar merchants remained obstinate.

One does not know whether this departure was conceived by all the Bulsar dealers jointly but, as the farmers had expected, the Bulsar dealers did combine and began to make efforts to set up an association of gul dealers, to defeat the farmers, on the point at issue. This produced a greater commotion among the farmers. A few bolder spirits among them came forward, and set themselves to the task of founding a farmers' association to withstand the encroachments of the merchants.

For that season Mr. Manibhai (Police Patel of Atgam), Mr. Chhotubhai J. Desai (another resident of Atgam who was at that time running a gul factory) and a few others, induced merchants from Broach to purchase gul belonging to a number of farmers of this area. In course of time was formed the Patan ( a village about 4 miles to the west of Atgam) Gul Company. Its career was brilliant but brief. Gul sold through its agency, fetched a remarkably high price. In one case it rose to Rs. 8 per maund, a record price. Unfortunately for the Company, one of the Kathiawar merchants who had purchased a large quantity of gul through its agency, failed, and all the efforts of the Company ended in smoke by 1918. Meanwhile the Bulsar dealers became wise and resumed the old system of sale which continues to this day.

Having thus given a few facts of the history of marketing, we may proceed with the marketing organization of three principal articles of export from this area, namely, paddy, gul and mango-fruits.

## MARKETING OF PADDY

*The volume of business.* The average yield of paddy per acre in this area varies, as we have already stated, from about 25 to 35 maunds. Assuming 30 maunds to be the average yield per acre, the total quantity of paddy produced in Atgam in the year of enquiry will come to more

than 20000 maunds.[1] Of this, on a rough estimate, not less than 1000 maunds were exported from the village. This, we were told, is a recurring phenomenon. The villages in the neighbourhood export about the same, which indicates that a large amount of paddy is exported from this group of villages to Bulsar, from where it is sent to more distant places.

*The marketing season.* Though paddy is exported at any time of the year when the farmer is in need of money, the bulk of it is exported in the months of November and December immediately following the harvest.

*The methods of marketing.* There are mainly three methods of marketing this crop which are described below.

(i) The farmer himself fills bags of paddy corn, loads them in carts and takes them to Bulsar town which is both a gathering and distributing market for paddy. The big dealers in this corn are the Chhipas of Bulsar, some of whom combine shopkeeping with commission business. The farmer approaches one of them whom he knows well. Seeing him, the dealer assumes a business air. For a moment, the familiarity displayed on other occasions vanishes, and the conversation centres round the settlement of the price. All the while the dealer is conscious that the farmer cannot go back to his village without disposing of his produce, as he requires cash, perhaps for paying land revenue or celebrating the marriage of his daughter. Fully availing himself of these circumstances and of his own knowledge of possible demand and supply of the corn, he settles the price after a good deal of haggling and strikes a bargain.

Taking a big 'hara', i. e. 21 maunds of paddy which is the unit in the paddy trade, the following are the usual deductions which the farmer has to meet before receiving the value of his produce.

1 The total acreage in 1926-27 under paddy of both species was 762.9 acres. Multiplying this figure by 30 we get 22887 maunds of paddy.

Supposing the price per hara to be Rs. 32 on this day,

| | | | | |
|---|---|---|---|---|
| Gross price= | Rs. | 32 | 0 | 0 |
| Deduct by way of | | | | |
| (i) weighing charges . . . . . . | ,, | 0 | 2 | 0 |
| (ii) discount for ready money . . . | ,, | 0 | 4 | 0 |
| (iii) the price of loss in weight, usually charged, whether the loss is real or not . . . . . . . . . . | ,, | 0 | 6 | 0 |
| (iv) Toll . . . . . . . . . . . | ,, | 0 | 1 | 0 |
| *Total* . | | 0 | 13 | 0 |
| Net receipts Rs. . | | 31 | 3 | 0 |

It is obvious that no deductions[1] are here made on the score of charity and Mahajan-fund, because the dealers do not belong to the caste of Marwari Banias. When, however, paddy is sold to a Marwari Bania, 2 annas by way of charity and one anna by way of Mahajan-fund are paid.

(ii) The other method may be thus described. One of the Chhipa merchants of Bulsar comes to the village and makes purchases of corn. In this case the price per maund of paddy purchased is invariably less than that given at Bulsar. The difference covers the transport charges, as well as some remuneration for the extra trouble to the merchant in coming to the producer to make purchases. In the year of enquiry we ascertained that the price given in the village varied from Rs. 28 to Rs. 30 per hara, while at Bulsar it varied from Rs. 32 to Rs. 34.

(iii) The third method is only a slight variation of the second. Instead of the Bulsar merchant, some enterprising men of this village undertake the business of marketing paddy, as a part-time source of income, to supplement

1 It may be noted that for 30 maunds of castor-seed sold, the deductions are: 2 annas by way of charity and 4 annas by way of discount for ready money. Similar deductions are to be met with in the case of Tur. (unit 20 maunds). It is necessary to add that when paddy is sold at Billimora, the farmer has to sustain a loss to the extent of the value of 1½ to 3 maunds per hara, thanks to the difference between the weights used in British and Baroda territories.

their uncertain earnings from land. These village dalals purchase corn, say, at Rs. 29 and sell it in the Bulsar market within a day or two, or even later, when the price shows a favourable rise. It is interesting to note that, in the year of enquiry, we noticed a case where one of these temporary brokers had made a forward contract with a Chhipa merchant of Bulsar, undertaking to supply him with a fixed amount of paddy before a particular date at the price ruling on the day, when the verbal contract was made. If properly organized, this instance augurs well for the marketing of their produce by the farmers themselves.

*The difference between the producer's and the consumer's prices* : We have so far given a brief description of marketing paddy. But the act of marketing cannot be said to be complete till the commodity is delivered to the consumer. Paddy is not the commodity that the average consumer of Bulsar purchases. He buys rice which is the result of husking paddy. The average rate at which Kada-rice was sold, during the year of enquiry, was about Rs. 3 per maund. From the account given above, the actual value realised by the producer, after paying necessary deductions, comes to Rs. 1-7-9 or about Rs. 1½ per maund. Obviously there is a hundred per cent. difference between the two prices. This is partly due to the fact that the producer sells paddy (or rice in an unhusked or raw form) while the consumer purchases cleaned rice ready for cooking; and partly due to the deductions we have enumerated above, which the farmer has to meet, as well as the profit of the middleman.

*Suggestions.* It will be interesting indeed to ascertain whether the farmer will gain anything by selling rice instead of paddy.

(a) If he hulls his paddy at home, which an average farmer who has little occupation in the off season can do, he will gain to the extent of Rs. 13 per hara as shown below.

Per every maund hulled the farmer can get :

| | | | | |
|---|---|---|---|---|
| | about | 22 | seers | of rice; |
| | ,, | 10 | ,, | of broken rice-grains called 'Kanki'; |
| and | ,, | 8 | ,, | of chaff which, when pulverised, is used as a food for a cow or a she-buffalo in milk. |

Valuing these at the prices of 1926-27, we get the following:

| | | | | | |
|---|---|---|---|---|---|
| | Rs. | 1 | 9 | 6 | for rice; |
| | ,, | 0 | 10 | 0 | for Kanki; |
| | ,, | 0 | 1 | 0 | for chaff or 'Kunski.' |
| *Total* | *Rs.* | 2 | 4 | 6 | |
| | | | | | or about Rs. 2 5 0. |

This shows that for every maund of rice the farmer may sell instead of paddy, he is likely to realise 13 annas more. Assuming that 3 annas are deducted by way of remuneration to the middleman, whose services are necessary as the farmer cannot stay in the bazar to sell the quantity of rice at retail prices, he will at least get 10 annas more per maund, or about Rs. 13 per hara. If the farmer does not sell Kanki and chaff along with the rice, he will realise about Rs. 1-8-4 per maund or roughly at least as much as he receives for paddy. In that case the Kanki and the chaff will constitute his net savings.

(b) If he gets paddy hulled in a mill in Bulsar he will be charged Rs. 3 per hara. Even in that case the farmer is not a loser as he will realise Rs. 10 more.

*Why do farmers not sell rice instead of paddy?* The big farmers do not follow this method of sale because they are afraid that the labour charges will be very high if all the paddy is hulled at home. If hulled in a mill, they argue that considerable time would be lost which would mean a deduction from their time for supervising the farms. The small cultivators do not follow this system, because they are ignorant of the potential gain.

*Co-operative marketing*: We believe that the situation would be much improved if a Co-operative Paddy Sale Society were started for this village, or a group of vil-

lages, under the guidance, administration and control of an intelligent and honest secretary and chairman. The obvious advantages of such a proposal are :

(i) It would remove the objection of the big farmer that he cannot spare time, as the Society would undertake to get paddy hulled for him.

(ii) Since this business of hulling paddy will be on a large scale, the cost per unit will be low. This removes another objection of the big farmer.

(iii) If hulled in the village with hand labour, it would afford a suitable subsidiary occupation to a few small peasant proprietors, who are compelled at present to migrate to outside areas to eke out a meagre existence.

(iv) It would also give the farmer the knowledge of some of the modern methods of marketing.

(v) Above all, the higher average price realised would prove an impetus to the farmer to grow a better species of paddy, or at least to produce a larger quantity and better quality, of the same species as he grows now, by the use of good seed and manure.

## MARKETING OF GUL

*The volume of business* : Gul is prepared out of sugarcane which is raised here as the principal commercial crop. On a rough estimate more than Rs. 10000[1] worth of Gul is exported per annum from the village under study. The quantity exported by the group of villages including Atgam, Dhanori, Kalwada, Fanaswada, Muli, Palan, Khajurdi, Pitha and Endorgota is worth about a lakh of rupees.

*The marketing season* : The marketing season varies with the kind of sugarcane from which gul is prepared. Two varieties of sugarcane, as already noted, 'white Mala-

[1] Acreage under sugarcane in 1926-27=26 Acres.
Average production of gul per acre=120 maunds.
∴ Total production of gul for the Village=3120 maunds.
Assuming Rs. $3\frac{3}{4}$ as the price per maund.
The total value of the whole production=Rs. 11700.

bari' (**धोळीमळवारी**) and 'Bharat morasi' (**भरतमोरसी**) are grown here. The former is manufactured from the end of October to the second week of November ; the latter from the end of December to the second week of January. The season of marketing gul therefore, extends mainly over three months, November, December and January.

*The unit used in the gul trade* : The unit of gul used is peculiar to this region. In this part farmers do not prepare blocks of gul as their brethren do in the Deccan. The usual system is this. When gul becomes cool, it is transferred from a small pan to earthen pots of varying weight. These pots are made by local potters. The usual weight of a pot made in Khergam is 12 seers, but it increases as we go to the west till it reaches about 22 seers in Dhamdachi, a village just in the vicinity of Bulsar. In Bhagda Bunder, about three miles to the south of Bulsar, the uppermost limit is reached. Here the weight of an earthen pot varies from 28 to 32 seers. The unit of gul is such an earthen pot containing gul filled to its brim. It includes both the weight of the vessel and the weight of gul. In fixing the price, the outside merchant invariably takes the weight of the pot into consideration.

*The methods of marketing* : Though there are variations in detail, the main links may be described as follows :—

Bulsar is the gathering and distributing centre of gul, as far as this region is concerned. Here we find a good numbers of dealers in gul. Some of them purchase gul on their own account ; some partly for themselves and partly for the up-country merchants ; and the rest, who constitute, the majority, act only as commission agents of the up-country merchants.

These dealer-merchants are generally connected[1] with the gul-producing villages through the village Bania or

1 Some of these dealer-merchants are directly connected with the growers of sugarcane as creditors.

one who is called a 'fatakia' dalal[1]. These dealers and dalals mostly belong to the Bania caste, but of late we find a few Anavils too.

The demand for gul produced here comes mainly from North Gujarat and Kathiawar. Some enterprising men of Broach, Kaira and Kathiawar have made it a regular business to purchase gul from the Bulsar and Pardi Talukas in the harvest season through the dalals of Bulsar and other places, and sell it piecemeal in their area either on their own account at retail prices or at wholesale prices to dealers.

## THE STAGES IN THE ACTUAL MARKETING OF GUL

In order to get a precise idea of what marketing of gul means, we shall briefly describe the different stages in the actual marketing of gul. Let us suppose that a Broach merchant desires to purchase 100 pots of gul from Atgam. He comes to Bulsar and goes to the house of his usual broker. The Bulsar dealer, or his clerk, accompanies the merchant to Atgam in a carriage. Both sometimes go direct to the farmer's field where gul is being, or has been manufactured, and the pots of gul stored under a shed made of bamboo-sticks, date-leaves and the upper dry shoots of sugarcane. More often they go with the 'fatakia' dalal of the village to the field or storehouse of the farmer. Soon after they reach the place, the up-country merchant inserts a small stick into some pots at random, to determine whether the quality of gul is the same at the bottom as is seen at the top. It is regrettable to have to note that it is a common practice, among some of the cultivators here, to cover the tops of different pots of gul with the best species of gul, of pale-

1 The 'fatakia' (i.e. irresponsible) dalal is generally a money-lender, as is the case in this village, who is interested in the sale of the client's produce so that his old debt may be repaid and a fresh one contracted, giving him (the creditor) some discount. He is called 'fatakia' because he is not responsible to the farmer for the value of gul sold through him.

yellow or shining grain-like colour. In testing the gul, the up-country merchant is assisted usually by the village dalal. The merchant then inquires of the farmer whence the pots have been bought and even weighs some of the empty ones to assure himself of the truth of the farmer's statement. Then follows an amusing process. The Bulsar Dalal and the village dalal on the one hand, and the up-country merchant and the Bulsar Dalal on the other, join their hands under the cover of a shawl and shake their heads, talking all the while in a mysterious language. This is the way in which haggling is concealed from the farmer who is the real owner of the commodity for sale and who, in justice, should have a prominent share in determining the price. A similar method is followed in the cotton market in Bombay. Of late, the Ujaliparaj farmers are generally consulted by the dalals. After a good deal of haggling the price is fixed and the merchant buys, say, 100 pots of gul. The up-country merchant and the Bulsar dealer then leave the village, entrusting to the cultivator and the fatakia dalal the task of despatching 100 pots of gul, each filled to the brim, to Bulsar in carts, to be sent by the Bulsar dealer. All charges incurred from the time the pots of gul are purchased at Atgam, to the moment when they are stacked in his godown at Broach, are to be borne by the up-country merchant.

After they are gone, the farmer gets 100 pots of gul weighed by a 'tolat' (weigher) and fastens earthen lids on their tops by means of pieces of fresh shoots of sugarcane.

One morning early a line of carts is seen coming to the farmer's field. These are sent by the Bulsar dealer to carry the pots of gul purchased. The village broker is sent for. The broker, the farmer and his men assist the carters in loading the pots in the carts and carefully fasten them to their seats. These pots are taken to Bulsar station, carefully loaded in a goods train, and despatched to Broach. The railway receipt is posted to the Broach merchant. On learning of their arrival,

the Broach merchant goes to the station with the receipt and takes the pots in carts to his godown.

The details of the approximate costs of all these processes, obtained from two residents of Atgam, are given below :

The unit adopted is 100 earthen pots each containing gul to the brim. The average weight of each potful is taken to be $1\frac{1}{2}$ maunds.[1]

∴ 100 pots of gul=150 maunds in weight.

Assuming Rs. 4/- to be the price per maund, the price of 100 pots=Rs. 600/-.

*Cost of transporting from the field of the Atgam farmer to the godown of the Broach merchant, including brokerage, freight, etc :*

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| *(a)* | Brokerage of the village dalal | 3 | 0 | 0 |
| *(b)* | Carting from Atgam to Bulsar including the toll duty . . . . . | 18 | 0 | 0 |
| *(c)* | Commission of the Bulsar dealer . . | 6 | 0 | 0 |
| *(d)* | Deduction on account of charity . . | 0 | 7 | 0 |
| *(e)* | Cost of baskets, ropes, etc., for fastening the pots while loading them in a wagon train so as to avoid breakage . | 9 | 6 | 0 |
| *(f)* | Coolie charges, etc., at the Bulsar station . . . . . . . | 3 | 0 | 0 |
| *(g)* | Railway freight from Bulsar to Broach. | 25 | 0 | 0 |
| *(h)* | Charges for carting gul pots from the station to the godown . . . | 4 | 0 | 0 |
| *(i)* | Duty etc., at the Broach Station. . | 6 | 0 | 0 |
| | *Total* . | 74 | 13 | 0 |

1 In some parts of this (Bulsar) Taluka it is a custom for the up-country merchant to deduct a quarter of a seer per every seer of the weight of the unit. This means that if a potful of gul weighs $1\frac{1}{2}$ maunds, the farmer receives the value of only 45 seers. 15 seers are deducted by way of the weight of the earth contained in the pot. In this tract, however, the scales for weighing gul are so constructed that in the actual process of weighing 1/8 of a seer per every seer is automatically deducted. This means that $7\frac{1}{2}$ seers are deducted for every potful of $1\frac{1}{2}$ maunds. It is necessary to note that our figure of $1\frac{1}{2}$ maunds, as the average weight of a potful, is exclusive of this deduction.

It may be mentioned at this stage that the Bulsar dealer deducts Rs. 1½ per Rs. 100/- worth of gul, or Rs. 9/- as in the case under discussion, while making payment to the farmer. This sum of Rs. 9/- will include Rs. 3/- by way of discount charges for ready money, Rs. 3/- by way of brokerage to the village dalal and Rs. 3/- the brokerage of the Bulsar dalal. From this sum of Rs. 9/- the Bulsar dealer gives Rs. 6/- to the Broach merchant as discount for ready money. Thus the net cost to the Broach merchant for the gul he purchased comes to Rs. 668-13-0. (Rs. 600 being the price of gul and Rs. 68-13-0 for other charges.)

*Financing* : A few words on the financing of gul marketing will not be deemed out of place. A few years back, the Bulsar dealers used to lend large sums to the up-country merchant in order to earn interest, discount and brokerage. In one of the cases, we were told, the amount was as high as three lakhs of rupees. But of late this credit has been restricted, thanks to a large number of bankruptcy cases that occurred in this part during the last two years. The confidence in foreign merchants has been greatly shaken. The natural consequence has been a decrease in the gul trade which spells heavy loss to the farmer who, in this part, is accustomed to raise sugarcane.

*A suggestion* : It is well known that the one end of the chain of exchange is the producer and the other is the consumer. We have seen that the producer realises from the Bulsar dealer Rs. 591/- ( 600/- gross price of his produce less Rs. 9/- by way of deductions) for 150 maunds of gul an average price of Rs. 3-15-0 per maund.

On enquiry, we found that the price per maund of gul ruling at Broach from April 1926 to March 1927 varied from Rs. 6-6 to Rs 6-9 per maund. Taking however, Rs. 6/- as the average price per maund charged to the consumer, the difference between the producer's and the consumer's prices comes to Rs. 2-1-0 or 52 per cent. on

the sale price realised by the producer. This difference is not immaterial from the standpoint of a cultivator who lives on the margin of subsistence. There is room, therefore, for starting a Co-operative Gul Sale Society, or a Union, which can be successfully run on business lines.

MARKETING OF MANGO-FRUITS OR MANGOES

Three types of mango trees, as noted elsewhere, are grown in this area—Alphonzo, Payree and Deshi. The two former form the bulk of the export trade to places like Bombay, Baroda, and Surat. The deshi mango-fruits are usually sold at Bulsar, and only sometimes taken to Surat and other places. Mangoes form mainly a commercial crop in this region, though a few of them are used in the village itself for making pickles of various sorts. The canning of mango-pulp is not known here. The season of marketing mangoes extends mainly over two months, May and June.

*The methods of marketing* : Mangoes are marketed in three different ways as follows :—

(1) The farmer himself sends mangoes by railway parcels, to one of his dalals in Bombay. The mangoes thus sent are invariably either of the Alphonzo or Payree type.

(2) Occasionally, some dalals of Bombay come to this area in early summer. They visit the gardens of big farmers containing trees of Alphonzo and Payree species. They go from one end of the garden to the other, speculate from the number of blossoms that are found on the trees, and offer a certain price to the owner for the whole produce of his garden for the season. If the farmer accepts the price offered as reasonable, a bargain is struck. Sometimes the bargain is made after a good deal of haggling on either side.

(3) Some energetic and intelligent men of Atgam itself undertake the work of marketing mangoes. Unlike the Bombay dalals, they do not and cannot buy whole gardens. As a rule, they purchase a few trees and those too,

of the Deshi or Payree species. What they generally do is this. They settle with the owners of mango-trees a lump sum as the purchase price of the fruit for one season. They get the mangoes picked and packed, and despatch them to Bulsar, Surat or Baroda and occasionally to Bombay. This they do on their own risk and responsibility bearing loss or making profit, as the case may be.

### *Statistics of marketing of mangoes from Atgam to Bombay.*

What is of importance and interest to us is the export trade in Alphonzo and Payree mangoes. The manner in which mango-fruits are picked and packed from Atgam and received at the Crawford Market in Bombay has been described in detail in the Report of the Mango-marketing Committee.[1] The economic aspects, however, deserve consideration. Fortunately for us, one of the intelligent Ujaliparaj farmers who sends his mangoes to a dalal in Bombay happened to keep a regular account of this enterprise. He wanted to see whether he was a gainer or a loser in not accepting Rs. 275/- to 300/-, offered to him by one of the Bombay dalals, as a whole-sale price for his garden of Alphonzo and Payree mango-fruits. The following account is based on the figures taken from his diary :

Expenses of marketing 120 baskets, each containing mangoes varying in number from 50 to 100 :

| | Rs. | As. | Ps. |
|---|---|---|---|
| (1) Cost of Bamboo, baskets, etc., for packing the fruits . . . . . . . . . . . . | 21 | 8 | 0 |
| (2) Cost of Coir-ropes and gunny bags to cover baskets . . . . . . . . . . . . . . | 18 | 13 | 0 |
| (3) Labour charges for picking, packing and carting mangoes from Atgam to Bulsar . . . . . | 21 | 4 | 0 |
| *Total* . | 61 | 9 | 0 |

1 This Committee was appointed by the Government of Bombay to investigate the problem of mango-marketing in the Konkan, 1924.

| | Rs. | As. | Ps. |
|---|---|---|---|
| *Brought forward* | 61 | 9 | 0 |
| (4) Railway freight from Bulsar station to Churchgate station . . . . . . . . . . . . | 84 | 18 | 0 |
| (5) Brokerage fee of the Bombay dalal . . . . | 41 | 10 | 0 |
| (6) Transporting mango-baskets from Churchgate to Crawford Market . . . . . . . . . | 26 | 10 | 0 |
| (7) Counting or weighing in Bombay . . . . . | 4 | 7 | 0 |
| (8) Miscellaneous . . . . . . . . . . . . | 15 | 0 | 0 |
| *Total* . | 233 | 7 | 0 |
| Gross receipts from the sale of 120 baskets of Mangoes despatched in instalments from 3-5-27 *to* 2-7-27 . . . . . . . . . . . . . . | 612 | 14 | 0 |
| Net receipts . | 378 | 7 | 0 |

The total number of mangoes exported was 5791 or about 482 dozens. Thus the gross price of each lot of 100 realised by this farmer comes to Rs. 5-7-6, or about Rs. $5\frac{1}{2}$.[1] The net price per dozen comes to 10 annas 6 pies. In the absence of statistics of the average price per dozen of mango-fruits, ruling in the Crawford market during the year 1927, we are unable to find out the difference between the producer's and the consumer's prices, as we did in the case of paddy and gul.

It is, however, obvious that this farmer has been benefited by undertaking the venture himself instead of selling the produce of his garden for a lump sum. He has realised Rs. 378/- whereas he was offered Rs. 275/- or at the most Rs. 300/-. The difference may be regarded as the remuneration for his own exertion. It may be said that the value of the experience gained is greater than the monetary profit. It is only by going through the experience that one can become a large dealer in marketing mangoes, or can easily manage a Co-operative Mango Sale Society.

[1] Our figure of gross receipts per 100 very nearly approaches the figure (Rs. 6/-) given by the Mango Marketing Committee, as the receipts per hundred fruits realised by a Konkani farmer.

*Mango-Pulp.* One reflection more and we have done with this subject. The Mango Marketing Committee calculates that the Konkan farmer can realise Rs. 8/- per hundred on the spot by canning mango-pulp. This is an admirable suggestion which we commend to the attention of the people. It is, however, well known that such an enterprise cannot be initiated by the people who are mostly illiterate and in want of capital. We think that the proper agency to initiate such a venture is the Co-operative Institute.

## CONCLUSION

The following are the main conclusions of this chapter.

(1) that the organization of marketing both daily necessities and agricultural products is uneconomical; and

(2) that if put on a co-operative basis, the marketing of necessities will secure the farmer all the advantages of large scale purchase, and that of agricultural products will make an appreciable addition to his income from land.

## CHAPTER—XII

# SOME TESTS OF AGRICULTURAL PROSPERITY

### INTRODUCTORY REMARKS

We have so far studied the action and reaction of what may be called the natural, social and economic environment, on the people of the village. It is usual in such studies at this stage, to give a picture of the economic life of the people of the village as a whole, and of important groups, in a statistical form based on family budgets. Before we go to these details let us consider the economic life of the people in a more general way, by the application of the tests generally applied by economists or Settlement Officers, to gauge the prosperity or otherwise of rural areas.

The prosperity of a rural area or a village, let us repeat, means the prosperity of agriculture, which is inevitably the major source of income to the people of the village. We shall, therefore, use these two phrases as interchangeable. Among the principal tests usually applied to gauge the prosperity of agricultural people may be mentioned the following :

(1) Extension of area under cultivation,
(2) increase in the number of plough-cattle,
(3) increase in the number of ploughs,
(4) increase in the number of carts,
(5) rise in land values,
(6) rise in rentals,
(7) rise in the prices of agricultural produce,
(8) ease with which land revenue is paid, and
(9) improvements in methods of cultivation.

## THE TRUE TEST OF AGRICULTURAL PROGRESS

The soundest test of measuring agricultural progress is evidently the out-turn of crops. If the out-turn of crops per acre, shows a definite increase when examined over a number of normal years, it can serve as an incontrovertible proof of agricultural progress.

It is a misfortune of this region, as it is of our country, that few peasant-proprietors keep any accounts of the annual yield of their farms, as the majority of them are illiterate. Though many of them know whether there is a tendency to an increase or otherwise, in the yield per acre of any crop, their information can at the best be accepted as vague impressions, as they do not weigh their corn. Such impressions are obviously of no use for a statistical and scientific study of the subject. We have, therefore, inevitably to fall back upon tests like those enumerated above, which enable us to observe agricultural progress or otherwise, only indirectly.

We propose to take the first four of these tests together for our discussion. It may be mentioned at the outset, that these tests taken by themselves in an abstract manner are no good as true indices of agricultural progress or otherwise. They must invariably be studied in relation to the size of the population. The significance of this important remark will be obvious from the following two tables :

TABLE No. 1.

| Tests | Year 1915-16 | Year 1926-27 | Increase (+) or decrease (–) | Percentage increase [+] or decrease [–] |
|---|---|---|---|---|
| 1. Land under cultivation in acres | 3129·9 | 3143·4 | +13·5 | + ·04 |
| 2. Plough cattle | 693 | 616 | –77 | –11·1 |
| 3. Ploughs | 297 | 329 | +32 | +10·7 |
| 4. Carts | 179 | 198 | +19 | +10·6 |

TABLE No. 2.

| Tests | Year 1915-16 | Year 1926-27 | Per capita in 1915-16 | Per capita in 1926-27 | Per capita increase [+] or decrease [—] |
|---|---|---|---|---|---|
| 1. Land under cultivation in acres | 3129·9 | 3143·4 | 1.3 | 1·2 | —·1 |
| 2. Plough cattle | 693 | 616 | ·29 | ·24 | —·05 |
| 3. Ploughs | 297 | 329 | ·127 | ·128 | +·001 |
| 4. Carts | 179 | 198 | ·77 | ·77 | — |

It is evident from the first table[1] that with the exception of plough cattle, there is an all round increase in other items. The fact established by the second table is that with the exception of ploughs, which show a negligible increase of .001 per cent., there is a decrease in the first two items and a stationary state in the third. Thus it is obvious that, if we do not take the size of the population into account, we shall get a misleading conclusion.

We shall now pass on to the other tests and see if the main conclusion, with regard to the economic condition of the people shown above, is confirmed or controverted. We propose to take the next three tests together as they are interrelated.

## INTERRELATION BETWEEN RISE IN LAND VALUES, RENTALS AND PRICES

Rise in land values and rise in rentals are closely associated with the rise in the price of farm produce. If the first two are due to the third, it will imply that there is an increased profit from agriculture which imparts a high

1 Settlement Officers as a rule, consider the resources of the people in the first way which is generally apt to show an increase and consequently likely to give a false, or at any rate an exaggerated notion, of the prosperity of agriculture and hence of the agricultural population. e. g. compare the Bulsar Taluka Revision Settlement report (1900), p. 6.

rental and capital value to land as a factor of production. If the rise in land values and rentals is not due to the rise in prices, they cannot be taken as indices of agricultural progress because in that case it will be due to scarcity caused by a larger population subsisting on the land. Let us now examine the causes of rise in land values and rentals.

## RISE IN LAND VALUES

The marginal table makes the fact of a rise in land values evident. It is often said that such a rise in land values is simply an unearned increment to the agriculturist. In other words, it is believed that he acquires it without labouring for it. Is this rise in land values due either to a rise in prices or to the pressure of population on land, or is it partly due to the former and partly to the latter? This is the crucial question to which we shall now attempt an answer.

| Year | Average price[1] of rice-land per acre in Rs. | Average price[1] of dry-crop land per acre in Rs. |
|---|---|---|
| 1910-14 | 116·9 | 30·6 |
| 1915-19 | 127·5 | 35 |
| 1920-24 | 159·6 | 52·6 |
| 1925-26 | 182·8 | 54·9 |

An enquiry into the sales of land during the last 26 years showed that, in some cases, the rise in land values was certainly due to a rise in the price of farm produce. For instance, in cases where grass land was turned into fields for sugarcane, the value of land rose. Thus the more valuable a crop is, the greater the value it imparts to the land on which it is grown. The price of the produce thus indirectly contributes to a rise in land values.

As we have already said, custom rules even to-day many of the transactions of our rural folks. It is quite natural that a rise in the value of one field—though this

1 In calculating these average prices, nominal sales made by sowkars to their clients and vice versa are excluded. It may be added that the prices of only two classes of soil are given because there is little difference between the prices of bagayat and kyari land in this village.

rise may be due more to improvements made by the farmer than to the rise in prices—affects the value of all other fields to such an extent that the average value of land for the village as a whole, begins to rise. Consequently in the case of some of those who realise a higher price by *selling plots without making any improvement* thereon, there is an unearned increment.

On the other hand, we came across several instances in which the rise in land values was due to an unhealthy state of competition consequent upon excessive pressure on the land. As a good amount of land has passed to the hands of the sowkars[1] during the last 30 years or so, a comparatively lesser area remains for the agriculturists. This leads to a cut-throat competition for land among agriculturists, which in its turn inflates the price of land. This is borne out by a number of cases in which the existing land was mortgaged for purchasing a fresh piece of land. The following are some of them.

| Schedule number of the purchasing family | Area in acres | Price in Rs. | Price per acre in Rs. |
|---|---|---|---|
| 302 | 1·6 (kyari) | 450 | 285 |
| 390 | 0·7 (kyari) | 240 | 343 |
| 445 | 2·0 (kyari) | 400 | 200 |
| 453 | 0·4 (jarayat) | 200 | 500 |
| 456 | 3·9 (jarayat) | 700 | 179 |

When we remember that in this village the average price per acre of Kyari land is Rs. 170 and that for jarayat Rs 60[2], the abnormal nature of these transactions will be obvious.

Again, occasionally the seller of a field exploits to its fullest extent the necessity of the purchaser, either to consolidate his holding or enlarge it, and exacts an inflated price. This is by no means uneconomic, but it does not

1 Of this tendency one typical illustration has been given in chapter VII.
2 How we have arrived at these figures will be explained in chapter XVII.

bespeak a condition of free competition in which the price of a commodity can be settled at a fair rate. In one case which we have already mentioned in Chapter VII, Rs.338 were taken per acre, for a plot of jarayat land which sells at an average price of Rs. 60 per acre.

Thus we see that the rise in the value of land is partly due to the rise in the prices of farm produce, and partly to the pressure of population on land resulting in unhealthy competition. To this may be added two other considerations, which generally play an important part in raising land values :

(i) It is widely known that land has a prestige value[1] in our rural areas. Our enquiry into the manners and customs of the Dhodias, a section of the Kaliparaj, showed that this idea of prestige was one serious consideration with them in the selection of a bridegroom for a girl. One of them informed us that he found numerous difficulties in finding suitable girls to marry his sons when he was landless. He, therefore, purchased a small plot of 7 gunthas, and now he finds that he is looked upon with respect. Even among an intelligent and literate community like the Anavilis, ownership of landed property is regarded as a qualification for a young man to be selected as a suitable match for a girl.

(ii) Moreover, partly due to the lack of banking facilities and partly to their ignorance of modern forms of investment, the villagers invest their savings, if any, in land. This increases the demand for land and consequently raises land values. Very recently in the village under study, a few Kolis who are serving as teachers in the neighbouring villages, invested their savings in purchasing 12 acres for Rs. 3750 or at an average price of Rs. 312½ per acre.

Thus it is obvious that the rise in the price of land is partly due to the rise in the price of farm produce ; partly to the unhealthy competition consequent upon great pres-

1 Cf. Report on an Economic Survey of Bairampur, Bhalla, p. 112.

sure of population on land, and partly to social considerations like the idea of prestige, and the conception of a safe investment. It is evidently impossible for any one to say whether this rise in land values indicates prosperity of the agricultural class or not, as so many considerations, other than a mere rise in the prices of farm produce, have contributed to it.

## RISE IN RENTALS

Passing on to the next test, the village under study has two forms of rent : kind-rent and cash-rent. The kind-rent is generally taken at half of the produce raised on the piece of tenanted land. Cash-rent varies with the nature of the soil and the price of the crop raised on it. The following are the rentals commonly charged at present for different classes of land :

| | | | |
|---|---|---|---|
| Rs. 6 | to | Rs. 9 | for an acre of grass land. |
| Rs. 24 | to | Rs. 30 | ,, ,, ,, ,, paddy ,, |
| Rs. 90 | to | Rs. 120 | ,, ,, ,, ,, sugarcane land. |

It is necessary to remember that the expression 'rise in rentals', when spoken of as a sign of agricultural progress, means 'rise in cash-rents' only. The reason why a 'rise in cash-rent' is regarded as an index of agricultural progress is this. When a tenant pays a higher rent for a plot of land than he used to do, it implies that his returns from the piece of land tenanted, must have increased to such an extent as to enable him to meet the rise in rent.

Unfortunately, no systematic records of land rented on either cash or kind rent are maintained in the village. On an examination of the crop-register of the village, we found, that the cash-rents were entered only in a few cases and then too not from year to year. In view of this unhappy state of affairs and the importance which the cash-rent has assumed in recent discussions in this Presidency in connection with land revenue, we persuaded the village accountant to take for the year 1926-27 a special survey of the tenanted plots, including the names of those who

leased and the terms of agreement. This survey yielded the following results :

(i) 888 acres out of 3143 cultivated acres or about 28 per cent. was leased on kind-rent; 195 acres or about 6 per cent. was leased on a cash rent of Rs. 2195 in all or Rs. 11.2 per acre, and the rest was cultivated by the owners.

(ii) As a rule, big landowners who live within the village are unwilling to lease land on a cash-rent since, as they said, it is not so beneficial to them as kind-rent.

(iii) The few plots which they leased on a cash basis contained only grass which has little value as compared with corn. The landlord does not, therefore, bother about a share in kind in such cases.

(iv) The landlords residing outside the village usually lease land on cash terms, since they do not care to put themselves to the trouble involved in (a) going to the village to collect their share after weighing the produce, and (b) keeping constant watch over the tenant lest he may conceal some part of the produce, and consequently give less to the landlord than his share.

(v) Sugarcane land is generally leased on cash-rent by the tenant because kind-rent is unfavourable to him. If he leased an acre on kind-rent he would have to part with about Rs. 355 worth of gul but if he rents it on a cash basis, he has to pay only Rs. 90 to Rs. 120 only.

(vi) In some cases the landowner was the sowkar and the tenant his client. The latter had mortgaged his land to the former for a loan. In such cases the rent included interest on the sum borrowed in addition to the normal rent.

(vii) In a few cases we found that the tenant was the original owner of land. He transferred it to his sowkar in repayment of his debt. Yet he cultivated it as a tenant and would pay any rent, and would not leave it because it was once his own property.

From the facts given above, namely, that the resident landlord is unwilling to lease on cash-rent land which yields

valuable corn crops ; excepting only in the case of plots of grass—a commodity of low value ; and that sugarcane fields are generally leased on cash-rent, as the tenant does not like to share the high price of gul, it is evident that the price of farm produce indirectly does affect rents. But, whether the rise in rentals is due to a rise in the price of farm-produce or not, cannot be easily said from the facts established by the census. On enquiry we found that there was no rise in rentals. On the contrary, two cases,[1] recorded in the crop register, showed that there was a great fall with the decline of prices.[1] This shows that the rise in the price of farm-produce alone is not responsible for an increase in rentals. What other factors were responsible for that rise we are unable to ascertain.

So far as the present is concerned, we have seen above that only 6 per cent. of the total cultivated land was leased on cash-rent in the year of enquiry. Of this, a greater portion had been so leased because of several other considerations mentioned above. It is, therefore, obvious that even if there was a general rise in the rental (which in the absence of figures we are not able to affirm), it could not be taken as an index of the increasing profits from agriculture.

Thus we have seen that neither a rise in land values, nor a rise in rentals, gives us any clue to the fact or tendency of agricultural progress. Let us now turn to the rise in the price of farm produce itself as a test of prosperity.

1 Both these were grass plots. With the rise in the price of grass the rentals of these plots rose but the fall in the rent during the last eight years by far outruns the fall in the price of grass. The actual figures are as follows:

| | Year | Acres | Cash rent in Rs. | Index No. of the Price of grass (1902=100) |
|---|---|---|---|---|
| Chase I. | 1918 | 32 | 400 | 364 |
| | 1926 | ,, | 100 | 300 |
| Chase II. | 1918 | 20 | 250 | |
| | 1926 | ,, | 125 | |

## RISE IN THE PRICES OF FARM-PRODUCE

In ascertaining whether there was a rise in the prices of agricultural produce we have constructed a table based on prices which were partly obtained from the records kept at the Bulsar Kacheri, and partly from the office of the Department of Agriculture at Poona, for no prices are recorded in the village itself. The prices thus collected are expressed in terms of index-numbers. In compiling these index numbers we had to reduce the figures to a uniform level. In some cases the prices are given as so many seers per rupee; in others it is so many rupees per seer or maund. We have reduced them all to so many rupees per unit of weight in calculating index numbers. Secondly, we have adopted the year 1905 as a basis since prices for all articles are not available for years prior to that, and because it was a normal year. Thirdly, for articles of food stuffs we have given a weighted index number. In doing so, the weights assigned to unhusked rice, wal, kodra and nagli were 13, 7, 1, and 1 respectively, in view of the cultivated area under each in this village. The following table thus constructed shows the trend of prices of farm produce during the last 21 years :

Prices of farm produce expressed in terms of index numbers :

| Year | Food grains | Gul | Castorseed |
|---|---|---|---|
| 1905 | 100 | 100 | 100 |
| 1914 | 123 | 133 | 122 |
| 1926 | 227 | 171 | 277 |

This makes it obvious that there was a rise in the price of farm produce during the last twenty-one years.

*Has the rise in prices benefited the agriculturists?* This is the principal question that we shall attempt to answer in the following few lines. In order to study the effects of this rise of prices on the economic condition of the agricultural

population, we shall divide the whole class of farmers into, big farmers and small farmers.

Gul and castorseed are raised by both these classes of farmers as commercial crops. The rise in the prices of these commodities obviously benefits them. As regards food-grains, the big farmers sell some portion which to them is a surplus ; the small farmers also sell a portion of their food-grains, which, though not a surplus, has to be sold in order to realise cash necessary for paying land revenue. Thus, as in the case of commercial crops, the rise in the prices of food-grains also, benefits both classes of farmers. In short, the apparent conclusion from this brief discussion is that the rise in the prices of farm produce should have benefited the agricultural class as a whole, including both big and small agriculturists.

But to what extent they have been benefited is a doubtful question. In ascertaining this, the following table of the wages of skilled and unskilled labour and the price of plough cattle will be helpful .

Wages of skilled and unskilled labour and the price of plough cattle expressed in terms of index numbers :

| Year | Wages of skilled labour | Wages of unskilled labour | Price of plough cattle |
|---|---|---|---|
| 1905 | 100 | 100 | 100 |
| 1914 | 140 | 120 | 150 |
| 1926 | 240 | 320 | 320 |

This table clearly establishes that during the period in which there was a rise in the prices of farm produce there was also a rise in the wages of both field and skilled (carpenters and ironsmiths) labour, and in the price of plough-cattle.

Looking at this rise in wages and in the price of plough cattle from the standpoint of the agriculturist, it becomes obvious that since these form the principal items in his cost of raising farm produce, the rise implies an increase

in his cost of cultivation. It is, however, necessary to remember that the big farmer is hit hard by the rise in the price of all the three, but the small farmer, only by the rise in the wages of skilled labour, and by the rise in the price of plough-cattle.

If we balance the extent of the rise in the prices of farm produce as a whole, with the extent of the rise in wages and in the price of plough cattle it becomes evident that the latter exceeds the former. Thus the conclusion is that the benefit due to the rise in the prices of agricultural produce is nullified by the rise in the cost of raising it. This conclusion is further confirmed by the following considerations :

(i) Our farmers are peculiarly unfortunate regarding their capacity to take advantage of rising prices of farm produce. Most of them are virtually forced to part with some of their produce close upon the harvesting season with the object of realising cash to pay land revenue. In our enquiry about the marketing methods of agricultural products in this village and the neighbouring villages, we found that this practice was so common that it never appeared as unnatural to the majority of farmers. What this circumstance costs the farmer will be evident from the difference between the harvest prices, and the highest prices of paddy and gul—the commodities which farmers of this place generally sell, as shown below.

| Commodity | Year | Rupees per maund of 40 seers [each seer = 40 tolas] | |
|---|---|---|---|
| | | Harvest price in Rupees | Highest price during the year in Rs. |
| Paddy | 1924 | 4·4 | 4·4 |
| | 1925 | ,, | 5 |
| | 1926 | ,, | 5 |
| Jagri | 1924 | 4 | 6·7 |
| | 1925 | 4 | 5 |
| | 1926 | 5 | 5 |

(ii) The customary deductions which the farmer has to meet by way of weighing charges, charity, Mahajan-fund and other miscellaneous charges should not be ignored in this connection.

Thus, though the rise in the prices of farm-produce does benefit the agriculturists, the leakage is so great that the balance is almost reversed. The rise instead of proving a blessing turns out to be a curse in disguise.

To sum up the discussion in connection with the rise in land values, the rise in rentals and the rise in prices of farm-produce, we find that on the whole the economic condition of the agricultural class in this village has not improved.

*First seven tests* : Taking the first seven tests together, we find that there is a close relation between the first four and the last three. If the agricultural class had been benefited by the last three, these benefits would have surely reflected themselves in their capital and implement wealth as well as in the extension of the area under cultivation. The decrease in the cattle and implement wealth of the village (if not in the area under cultivation) forcibly proves that the rise in land values, in rentals, and in the price of farm-produce have not benefited the ryots. We shall now consider the remaining tests.

## EASE WITH WHICH LAND REVENUE IS PAID.

The ease with which land revenue is paid during the last thirteen years is shown by the following figures :

| Year | Number of notices issued | Remarks |
|---|---|---|
| 1913[1] | 43 | At this time a Dhodia Patel was in charge of the village administration. |
| 1914 | 48 | The first year of the career of Mr. Manibhai as a Police and Revenue Patel of Atgam. |
| 1915 | 27 | |
| 1919 | 3 | The year of the renewal of the Patelship of Mr. Manibhai. |
| 1919 to 1926 | Nil. | Patel: Mr. Manibhai. |

It is obvious from the above figures that as no notice had to be served during the last seven years to any of the villagers for not making an immediate payment of land revenue, it was being paid with ease. This ease admits of a double explanation. It may either suggest that the economic condition of the agriculturist had considerably improved during this period or that the administration had become more efficient in collecting land revenue in due time. From our personal investigations we found that the absence of notices during 1919-26 shows an efficient administration rather than an improved economic condition of the agricultural class as a whole. This will be clear from the following. In 104 cases of payment of land revenue examined, we found that in the year of enquiry, 27 farmers paid land revenue wholly by borrowing from the local co-operative society or sowkars or relatives ; 19 paid out of non-agricultural sources, and 11 paid partly by borrowing and partly by sale of some of their farm-produce. Thus in 38 cases out of 104 or 26 per cent. of the total, money flowed from sources other than agriculture. This speaks for itself.

1 This is the earliest year for which figures are available. The earlier records, we are told, have been destroyed.

## IMPROVEMENT IN METHODS OF CULTIVATION

Finally, we come to the last test of agricultural progress, namely, improvement in methods of cultivation. Under this head we found from personal inspection supplemented by local information that some Kaliparaj, Koli and high class Hindu farmers did show some progress as indicated below :

(i) Two wells have been sunk by Koli farmers during the last ten years.

(ii) Much better tilling and manuring than before are done by a minority of farmers.

(iii) Some of these have exhibited a sense of enterprise by introducing new varieties of crops like cotton and wheat.

(iv) Some have increased of late the number of mango trees of the Alphonzo species.

(v) Some have carved out new rice-beds in Jarayat fields.

The fact that these improvements have been made only by a few, who are sufficiently well off to try them, does not show a tendency towards general progress.

Thus an examination of the general economic conditions of the people of this agricultural community by the application of the tests usually employed by economists and Settlement Officers to gauge the progress of rural areas, shows that, if anything, the people of the village have remained in a stationary economic condition during the last decade or more.

Having thus examined in a general way the economic condition of the people, we shall now undertake in the following chapters a detailed discussion of the economic condition of the people as a whole and as divided into important groups, with the help of statistics we have collected.

# CHAPTER—XIII

## STANDARD OF LIVING

### INTRODUCTORY REMARKS

We have hitherto studied the general features of the economic life of the people of Atgam. We are now in a position to give the true economic picture of the village, for which the preceding chapters will serve as a background. For this purpose we shall first take into account the expenditure or standard of living of the people.

'The standard of living' is a phrase used in different senses by different economists. It is, therefore, necessary to determine the exact sense in which it is used in this chapter. The term 'standard' may mean either a type, an average or an ideal. For instance, when phrases like a 'standard typewriter' or a 'standard dictionary' are used, the term 'standard' means the common, ordinary, accepted or representative form of an object. But when such an expression like 'a man of high standards' is used, the same term 'standard' means an 'ideal'. The standard of living may thus mean two things : (i) the way in which people actually live and (ii) the way in which they ought to live. The former concept is of greater importance than the latter in such realistic literature as village studies. We have, therefore, used the standard of living of a group to mean 'an average amount of necessaries, comforts and luxuries enjoyed by the typical family in the group.[1]

### GROUPING OF THE PEOPLE

Having thus determined the meaning of the expression 'standard of living' we should know whether the people inhabiting this village form a homogeneous group.

We have already found it necessary to classify the peo-

1 Cf. *Applied Sociology*, Henry Pratt Fairchild, p. 83.

ple into two broad groups, namely, the Kaliparaj and the Ujaliparaj. We have noted that this division is necessary because there is an economic as well as cultural difference between these two groups which must have already been obvious from a perusal of the preceding chapters. So far as the different sections of the Kaliparaj are concerned, there is a remarkable similarity of economic and cultural life. In the case of the Ujaliparaj too, there is a broad uniformity of life. But a minute observer detects under this broad uniformity of life among the latter, an appreciable difference between the economic life and cultural outlook of the Brahmins (including the Anavils), Banias, Parsis and Christians on the one hand, and the rest of the Ujaliparaj on the other. Such a distinction among the Ujaliparaj was found necessary, at least while studying the standard of living, which is so realistic a topic that even small details cannot be overlooked in its consideration. We have, therefore, divided the total population of the village into three groups. The first consists of the Kaliparaj, the second of the Ujaliparaj with the exception of Brahmins, Banias, Parsis and Christians and the third of the rest.

## METHODS OF STUDYING THE STANDARD OF LIVING OF THE PEOPLE

There are two methods of studying the standard of living of any group of people. The first consists of collecting family budgets and the second of constructing a standard budget for a typical family of the group under study. In the former we have to collect from all the families constituting the group the estimates of annual expenditure on different items like food, clothing, shelter, etc. In the latter we have to consult freely different intelligent members of the group as to what a normal family, say, of one man, two women and two children usually spends, according to their notion, on food, clothing, shelter, etc. The former is certainly preferable to the latter as it is more realistic. But it is necessary to remember that the former is

possible only in an enquiry about those people, an appreciable proportion of whom is literate and intelligent and can give reliable estimates. In view of the illiteracy of the majority in this village, we have adopted the second method for a large number of families and the first only for a few. We, however, propose to enumerate the difficulties which obstructed us in adopting the former method for the benefit of a future investigator dealing with a similar group of people.

*The method of sampling* : So far as the first group consisting of the Kaliparaj was concerned, the following were some of the principal difficulties :

(i) The Kaliparaj are in the habit of purchasing their sundries from day to day and, their food-grains [1] frequently during the year. They neither keep accounts of these purchases as most of them are illiterate, nor do they care to remember how much they spend on them. (ii) The majority of them do not know the quantity of corn their families consumes per annum. Some of them told us that a man required about one 'hara' or 21 maunds of corn per year. But it is necessary to note, that one of the most patent facts of their life is that many of the small cultivators and labourers in their castes, indulge in feasts during winter and early summer when there is plenty, and consequently have to underfeed themselves during the latter part of the year, or are compelled to live on corn borrowed from the sowkar or their relatives, with a promise to return about twice as much. Careful observation convinced us of this lamentable fact and hence in calculating the net income of such families we had to take this dismal fact of annual corn-borrowing and repayment into account. (iii) Only a microscopic minority of these people are intelligent enough to talk reasonably with any one on this subject. The extent of their ignorance may be gauged when we meet with instances of heads of some of the Kaliparaj families who cannot

1 The Ujaliparaj purchase the food-grains for the year during the season.

tell us even the number of children in their families, without a series of cross-questions.

With regard to the second group, absence of accounts was certainly a great difficulty. Though some family-heads could supply us with very rough estimates of expenditure, the majority could not with any approach to accuracy. In their case, too, we were forced to adopt a standard budget for all castes taken as an aggregate.

In the case of exceptional families, which form the third group, we were fortunate in getting fairly reliable estimates of expenditure on different items from the heads of nine families, and estimates of total expenditure only, without the details of different items, from the remaining three.

We shall now turn to a detailed discussion of the standard of living of these three groups. In the case of the first two we shall describe how we have constructed the standard budget, and in the case of the third we shall make only a few remarks about their standard as seen from the estimates of expenditure supplied to us.

## THE STANDARD BUDGET ADOPTED FOR THE KALIPARAJ

We shall describe in a general manner the method of constructing a standard budget for a group. It may be noted that even in this case there are two ways of constructing a standard budget. One is to collect a few normal budgets from some intelligent members of the group and then deduce the expenditure therefrom for an average family. This method mostly resembles the family-budget method. The second way is to construct at first hand a budget of normal expenses incurred by the average family of the group on different items after a free consultation with the people. We have combined the two. We collected a few weekly budgets from some intelligent members of this group and ascertained the nature of their dietary. We subsequently proceeded to construct

the abstract budget for an average family, partly with the knowledge derived from a study of their dietary as mentioned above, and partly by consulting different members of this community, and also of other communities who were well acquainted with their life and manners. The normal budget of an average family of this group that we have constructed and adopted in our calculation, is thus a result of frequent talks with the members of the community as well as outsiders, modified in the light of the actual weekly budgets we collected. We shall now discuss it under different items.

*Food* : The staple food of the Kaliparaj is rice. Next in importance to rice among food-grains is Nagli which is largely consumed by them in the shape of loaves. Occasionally Kodra, another kind of coarse grain, is substituted for Nagli and consumed in a similar form. The village being a region where wal is invariably raised as a second crop to paddy, it figures frequently in the budgets of these people. One usually hears the remark that if an average Kaliparaj man is supplied with as much toddy and wal as he likes, he will think himself to be in paradise on earth, and is sure to work no longer. Sometimes during the year when gul gets exhausted, they use sour milk as a substitute. In summer they generally eat wal. In the rainy season they alternate sour milk with some vegetable grown on the boundaries of their fields. During the monsoon and in winter when brooks are teeming with fish, many of them catch them for food.

Among the items of food, jowar is used only occasionally by some of the comparatively well-to-do Dhodia and Dubla families, especially when some guests are to be entertained. Meat is indulged in only as a luxury, for it is too dear to be an item in the budget of an average family.

Milk and ghee of milch cattle are rarely used, though use of milk and ghee from goats is not so rare. Salt is an indispensable item in their budget. Among spices the chief is chillies. Sometimes til-oil or ground-nut oil is used in frying vegetables.

This discussion leads us to a quantitative and monetary consideration of the normal budget of an average family of this group, which is composed of 1.67 men, 1.54 women and 2.48 children. For facilitating our calculations, we shall first consider the budget of a normal family of five persons consisting of one adult male, two adult females and two children.[1]

From minute observation and frequent consultation with them, we think that the average daily requirements of such a normal family may be safely taken at 5 seers of paddy, $3\frac{1}{3}$ seers of Nagli and about $1\frac{1}{3}$ seers of wal or any other pulse sometimes replaced by vegetables or sour milk.[2]

Assuming the quantities mentioned above as the daily requirements and taking into consideration the remarks about the diet of this group made above, we have constructed the following table which gives an idea of the annual quantity and cost of the ration of a normal family of five.

| Material | Quantity needed per annum | Value per annum in rupees |
|---|---|---|
| 1. Paddy | 1800 lbs. | 90 |
| 2. Nagli (or Kodra) | 1200 ,, | 60 |
| 3. Pulses (wal or any other) | 360 ,, | 18 |
| 4. Salt | | $4\frac{1}{2}$ |
| 5. Chillies<br>6. Sesamum oil<br>7. Miscellaneous | | $7\frac{1}{2}$ |
| | *Total* | 180 |

Assuming that a woman requires four-fifths and a child two-thirds of the food a man does, the necessary expenditure for food will be Rs. 45-12-0 per man, Rs. 36-10 per woman and Rs. 30-8-0 per child, per annum. It is evident that the price of the food-grains dominates the total cost of food in the case of this class as was found to

1 In considering the question of food and clothing requirements, we have regarded all persons under 15 as children.

2 How unsubstantial this diet is will be evident from Appendix IX.

from their relatives and others purchase it from shopkeepers. By far the most important item of expenditure is toddy or liquor. The task of computing what an average family spends on toddy or liquor seemed almost impossible, for these people have an insatiable desire for drink. Even the occasions of marriages and deaths are made mere orgies of toddy and liquor. Though villagers are usually supposed to spend little on medicine, it is nevertheless true in the case of these people that an appreciable amount is usually spent in paying their medical adviser who is styled a Bhagat (devotee). When any member of a family is laid up with fever, the 'Bhagat' is sent for. As soon as he reaches the cottage of the sick, he declares himself to be 'possessed'. As a sign of possession, he shakes his head and rocks violently, all the while uttering some weird words which he alone understands. Sometimes he strikes his patient with the branches of some tree in order to cure him. Sometimes he gives him the juice of some leaves or roots. During his visit he is served with toddy or liquor and given a few coppers as his fee. No expense is incurred on education as it is imparted free to these people both in Atgaṁ and Khergam to its immediate east. After considering all these details like lighting, smoking, use of intoxicants, medicine and education, we have adopted the modest sum of Rs. 25 or Rs. 5 per capita for a normal family of 5 persons as the normal expenditure on other necessaries.

The following will be the total expenditure, on the basis of the prices of 1926-27, for a normal family of five persons :

| | Man | | | Woman | | | Child | | | Family of 5 persons | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. | Rs. | As. | Ps. | Rs. | As. | Ps. |
| Food | 45 | 12 | 0 | 36 | 10 | 0 | 30 | 8 | 0 | 180 | 0 | 0 |
| Clothing | 11 | 8 | 0 | 14 | 4 | 0 | 8 | 0 | 0 | 33 | 12 | 0 |
| Other Expenses: including lighting, smoking, intoxicants, medicines etc. | | | | | | | | | | 25 | 0 | 0 |
| *Total.* | | | | | | | | | | 238 | 12 | 0 |

Thus the annual cost of maintenance for a normal family of five persons of this group comes to about Rs. 240 or roughly Rs. 48 per capita. These are obviously only estimates. In order to be on the safe side therefore, in our detailed calculations, for estimating the total annual cost of living of all Kaliparaj families that come under the perview of this economic enquiry, we have adopted the following figures as the usual amounts spent on different items of expenditure, per man, woman and child, male and female.

| | Average cost for food Rs. | Average cost for clothing Rs. |
|---|---|---|
| Per man | 45½ | 12 |
| Per woman | 36½ | 7 |
| Per male child | 30½ | 2 |
| Per female child | 30½ | 6 |

Regarding 'other expenses on necessaries' we have taken Rs. 5 as the cost per capita irrespective of sex and age.

Calculating on the basis of these figures the following represents the standard budget of an average[1] family of the Kaliparaj group which consists of 1·67 men, 1·54 women and 2·48 children :

| | Rs. | As. | Ps. |
|---|---|---|---|
| Food | 207 | 12 | 9 |
| Clothing | 40 | 4 | 1 |
| Other expenses | 29 | 7 | 2 |
| *Total* | 277 | 8 | 0 |

How low this standard of living is will be obvious from the discussion of the standard for the other two groups.

1 It may be noted that the average family is different from the normal one. The latter consists of one man, 2 women and 2 children; the former of fractions as shown above, and is based on the census taken by us.

## THE STANDARD BUDGET ADOPTED FOR THE SECOND GROUP

As in the case of the Kaliparaj group, we collected weekly budgets of a few families of different castes included in this group. Some of these budgets were written by the heads of families under our supervision and instruction from day to day, and others were prepared by ourselves after daily visits to the families concerned. Unfortunately, this was an off season when there is usually little field-work to be done. Consequently in accordance with the custom prevalent among these castes many persons had come as guests. We, therefore, find in some of the budgets rich meals prepared by the family to entertain such guests. Moreover it is necessary to remember that these budgets relate to families whose heads could appreciate such an enquiry, and such persons, as in the case of the first group, were naturally above the average. Again, the diet that the average family of the group takes is not as varied or rich as is revealed by some of these budgets.

A minute study of these budgets supplemented by conversation with different members of this group leads us to the following conclusions regarding the diet of the people comprising this group :

(i) The staple food of these people, like that of the first group is rice, as this is a rice-region.

(ii) The food-grain next in importance varies slightly with different castes but mainly with their economic condition. A few families like the Rajputs, Suthars, Darjis and some Mahommedans use jowar or rice-flour. But the majority of this group, namely, the Kolis and others use Nagli-flour in the form of loaves.

(iii) Other items of expenditure are similar to those of the first group, except that mutton and fish and a few luxuries like dishes of 'lapsi'[1] or milk and ghee occur in this group.

1 Wheat pieces mixed with sugar or gul and ghee.

In matters of clothing, there is an appreciable difference between the first and the second group. The dress of the latter is more ample and varied than that of the former, for this group is comparatively more advanced than the first. Even the depressed classes who are usually regarded as shabbily dressed, clothe themselves neatly in this village. Sometimes we find some of them wearing a coat or shirt even costlier than that put on by a high class Hindu. They receive such shirts and coats by way of gifts from their European masters in Bombay. After a close personal observation of these and many other small but significant peculiarities regarding the dress of these people, we have assumed the following as the approximate amounts the average family of this group will spend on clothing.[1]

Rs. 20 for a man
Rs. 20 for a woman
Rs. 10 for a child, male or female.

As regards other expenses on lighting, smoking, use of intoxicants, education and medicine, the average family of this group spends a little more than that spent by an average family of the first group. Taking this distinction into account, we have adopted Rs. 7 per head as the usual 'expenditure on other necessaries' for an average family of this group.

## THE STANDARD OF LIVING AMONG THE THIRD GROUP

As already mentioned, in the case of families constituting this group we have been lucky enough to get the estimates of expenditure from the various heads of the families themselves. This has greatly facilitated our task of studying the standard of living of this group. The following table shows in brief the estimated expenses incurred per annum by the different families for different purposes :

1 *These figures include the cost of shoes, umbrellas etc.*

SHOWING THE ANNUAL EXPENSES INCURRED BY THE THIRD GROUP ON DIFFERENT ITEMS, IN RUPEES

| Schedule No. of the family | Food | Clothing | Fuel and lighting | Expenses on other necessaries | Social expenses | Litigation | Miscellaneous | Total |
|---|---|---|---|---|---|---|---|---|
| 422 | 451 | 50 | 100 | 380 | 20 | —— | 10 | 1011 |
| 423 | 448 | 30 | 100 | 100 | 20 | —— | 10 | 708 |
| 424 | 306 | 30 | 40 | 25 | — | —— | 10 | 411 |
| 425 | 496 | 30 | 100 | 140 | 30 | —— | 10 | 806 |
| 426 | 781 | 101 | 125 | 114 | 75 | —— | 10 | 1206 |
| 427 | 608 | 39 | 167 | 95 | 95 | —— | 10 | 1014 |
| 432 | 598 | 60 | 150 | 90 | 75 | 100 | 30 | 1103 |
| 433 | — | — | — | — | — | —— | — | 700[1] |
| 434 | — | — | — | — | — | —— | — | 400[1] |
| 441 | 880 | 120 | 300 | 70 | 100 | —— | 30 | 1500 |
| 442 | 725 | 40 | 200 | 120 | 100 | 100 | 30 | 1215 |
| 461 | — | — | — | — | — | — | — | 500[1] |

Some explanation of certain abnormal figures found in connection with schedule numbers 422 and 432 is necessary .

(i) The expenses on 'other necessaries' in the case of family No. 422 seem to be abnormal. But as a matter of fact it is not so. It appears so because the cost of maintaining one of the members of this family who is studying at the Engineering College at Karachi enters into this total.

(ii) The item of litigation is filled in only in the case of family No. 432 as its head is a money-lender and has on occasions to go to a law court to recover his money.

With regard to the actual standard of living of this people, a few general remarks will not be deemed out of place. The main diet of these families, too, is rice. But

1 The heads of these families could not supply us with the details of their annnual expenditure.

in some cases the rice consumed is not Kada but Kolam—a better and more nutritious species of rice. The food-grain next in importance to this is jowar which they consume in the form of bread. Nagli flour is rarely used by them as food. Though the last two families are non-Hindus, their diet chiefly consists of the same food-grains. They, however, supplement it by frequently taking fish and mutton. Vegetables are used by all families but they are generally those raised in their own compounds. Milk and ghee are consumed by all in fairly large quantities. Thus their dietary is ample and varied.

It is obvious from the table that these families spend an appreciable amount on clothing. In actual practice we found them cleanly dressed. All the heads as well as most of the members of these families are literate. Four of them know how to read and write English. They usually read vernacular and sometimes English newspapers. Possessing a high status in the village, they have to incur a comparatively large expenditure on social ceremonies. Education and recreation are recurring items of cost in their budgets. Thus this small group of people enjoys a relatively high standard of life according to the notions of the local people.

## CONCLUSION

The following are the conclusions from this chapter :

(i) that from the standpoint of the standard of living, the population of the village can be divided into three groups : the first comprising the Kaliparaj, the second the Ujaliparaj with the exception of Brahmins, Banias, Parsis and Christians, and the third the excepted classes ;

(ii) that the standard of living rises as we go from the first group to the third so far as this village is concerned ; and

(iii) that the difference between the standard of living of the Kaliparaj and that of the Ujaliparaj as a whole is obvious, and discloses the extent of the gulf that at pre-

sent exists between these two broad groups of people who inhabit South Gujarat.

We have thus studied the standard of living of the people of Atgam or, what is equivalent to the expenditure side of the budget of the people. We have already referred in some of the preceding chapters to the method of arriving at the income of the people from different sources. We shall now gather all the threads of discussion about income from different sources and expenditure on different items, and present in the next chapter the economic condition of the people in a nutshell.

## CHAPTER—XIV

# THE ECONOMIC CONDITION OF THE PEOPLE

### INTRODUCTORY REMARKS

The aim of such village studies is to examine the economic condition of the people of a village with the help of statistics. Graphic descriptions of the general features of the economic life of a village, are apt to fall flat, unless they are supplemented by a statistical presentation of the economic life of the people. The object of this chapter is to attempt such a statistical presentation of the economic condition of the village community we have studied so far. Income and expenditure are the two measuring rods invariably used in this task. Indebtedness is only a consequence of an excess of the latter over the former.

So far as the income of the people is concerned, land, labour and animals and in some cases, employment in outside areas, are the principal sources of income. The method by which we have derived net receipts from these different sources, and have entered them in different family schedules, has already been explained in some of the preceding chapters. In some cases the details are given in the appendices. It is, however, necessary to mention at this stage three points :

(i) In the schedule, as we have constructed it, the income from labour is classified into income from unskilled labour and, income from skilled labour. This classification was necessary in order to attain precision. The receipts from the latter kind of labour are generally calculated at a higher rate than those from the former.

(ii) In making the schedules we have entered the income from external sources separately, in the column headed 'unskilled labour', with a view to ascertain to what extent the economy of this village is affected by extra sources of income.

(iii) In the column headed 'other sources' we have entered the receipts from subsidiary occupations, like mat making pursued by Dhodia women and net making followed by fishermen, as well as receipts from corn lending and money lending, in the case of those who do this business.

As regards the expenditure side, we have explained in the last chapter how we have calculated the expenditure necessary for maintaining the standard of living for the Kaliparaj and the majority of the Ujaliparaj, and have given the actual figures regarding the remaining families. Besides this expenditure for necessaries, the families have to incur expenditure by way of annual payments of land revenue and interest charges on debt, as well as the annual expenses on repairs of implements used in cultivation. The first two need little explanation; the method used in connection with the last has been explained in Chapter VIII under the heading 'Implements'.

The figures of indebtedness which we have entered in the different schedules are, of course, what we obtained directly from the people, after a good deal of cross examination in our house-to-house enquiry.

These introductory remarks, regarding the method of collecting information before entering it in the schedules, are important in view of the fact that the statistics given in this chapter are wholly based on personal investigations.

One more thing of importance may be mentioned here. In our detailed calculations of the income, expenditure and indebtedness of the people we have rejected eleven families out of 461. Thus the statistics and the remarks that follow refer only to the remaining 450 families. Henceforth the term village will be taken to imply these

450 families only. The reasons for rejecting these 11 families have been explained below.[1]

For the purposes of discussion, we have divided this chapter into two sections. The first is devoted to a statistical presentation of the present economic condition of the people. The second embraces a consideration of the causes of poverty revealed in the first section and a brief discussion of the programme of reconstruction. In the first section, however, with a view to clearly understand the situation, we have presented the figures in the followin four sections :

(i) statistics referring to the people of the village as a whole ;

(ii) those referring to the people divided into economic groups ;

(iii) statistics separately given for the Kaliparaj, both in the aggregate and as divided into economic groups ; and

(iv) those given for the Ujaliparaj in a similar way.

## SECTION I.

## STATISTICAL PRESENTATION OF THE ECONOMIC CONDITION OF THE PEOPLE

We shall first give the balance-sheet for the village as a whole.

*The balance-sheet for the village* : The following are the figures of the net annual income and expenditure of the

1 The following table shows the reasons why eleven families have been rejected;

| Schedule number of families. | Reason for rejecting their budgets. |
|---|---|
| 45 | Left the village during the course of our enquiry. |
| 81 | Do. |
| 82 | Do. |
| 414 | Do. |
| 216 | The man is mad and lives by begging. |
| 448 | Died during the course of the enquiry. |
| 430<br>435<br>436<br>440<br>443 | These are one-member families. The members mostly live out of the village. |

450 families comprising 2213 consumption-units[1] which our detailed investigations embrace.

| Income : | Amount in Rupees. | Percentage of each on the total income of the village |
|---|---|---|
| Income from land | 80201 | 52·2 |
| ,, ,, animals | 12776 | 8·3 |
| ,, ,, labour | 40215 | 26·2 |
| ,, ,, external sources | 16021 | 10·4 |
| ,, ,, other sources | 4589 | 2·9 |
| *Total* | 153802 | 100 |

| Expenditure : | Rs. | Percentage of each on the total income of the village |
|---|---|---|
| Cost of living | 127398 | 84·8 |
| Expenses on repairs of implements | 6213 | 4·2 |
| Land Revenue | 7221 | 4·8 |
| Interest charges | 9251 | 6·2 |
| *Total* | 150083 | 100 |

The total indebtedness for the village as a whole amounts to Rs. 94758.

It is obvious from the above figures of income and expenditure that, the economy of this village as a whole leaves, a surplus at the end of the year. The surplus, however, gives a misleading idea. The following figures give a correct view of the situation :

| | | |
|---|---|---|
| 1. | The average size of a family is . . . . . . | 4·9 |
| 2. | The average income per family is about . . . | Rs. 342 |
| 3. | The average expenditure per family is about . | ,, 334 |
| 4. | The average indebtedness per family is about . | ,, 211 |
| 5. | Per capita income is about . . . . . . . . | ,, 70 |
| 6. | ,, ,, expenditure is about . . . . . . | ,, 68 |
| 7. | ,, ,, indebtedness is about . . . . . . | ,, 43 |

1 Our readers will remember that in the last chapter we mentioned that children of either sex under five are ignored in the case of all families while calculating their cost of living. Hence the number of consumption-units is less than that of the actual number of persons these 450 families consist of.

It is thus evident that the average family of Atgam just maintains itself from hand to mouth.

## DISCUSSION OF THE ECONOMIC CONDITION OF THE PEOPLE AS DIVIDED INTO ECONOMIC GROUPS

With a view to have a thorough grasp of the reality, we have further divided the families into three economic groups. The classification adopted is the same as that used by Dr. Mann in his village studies. These groups may be defined as under:

I. Those families in which the income derived from land is sufficient in a normal year to maintain them in a sound economic condition.

II. Those families in which the income derived from land, supplemented by income from other sources, like animals, skilled and unskilled labour or employment in outside places, is sufficient in an average year to maintain them in a sound economic position.

III. Those families in which the economic position in an average year is unsound, even when income from all sources is considered.

The number of families in each of these groups, for the village under study is :

| | | | |
|---|---|---|---|
| Group | I. | 36 | families |
| ,, | II. | 185 | ,, |
| ,, | III. | 229 | ,, |
| *Total* | | 450 | families |

This makes it quite obvious that out of 450 families more than half are living below the reasonable standard of living as understood by them. This is a serious state of affairs. The natural question that arises at this stage is as to why such a large proportion of families is living in an unsound economic condition. A further analysis of each of the above groups will help us in answering this question.

*Group I.* This group consists of 36 families. All of them are landowners. The main facts about this group are as follows :

| | | | |
|---|---|---|---|
| 1. | The average size of the family is . . | 4·6 | |
| 2. | The number of children per family is . | 1·25 | |
| 3. | The total amount of land held by all families is . . . . . . | 637 | acres. |
| 4. | Land owned by the average family is . | 18 | ,, |
| 5. | Land owned per head is . . . | 3·9 | ,, |
| 6. | The total amount of land cultivated by all families is . . . . . . | 599 | ,, |
| 7. | Land cultivated by the average family is | 17 | ,, |
| 8. | Land cultivated per head is . . . | 3·7 | ,, |
| 9. | With the exception of 3 families, the rest are largely in debt. Their total debt amounts to . . . . . . | Rs. | 14546 |
| 10. | Indebtedness per family is about . . | ,, | 404 |
| 11. | Indebtedness per head is about . . | ,, | 88 |

The general economic position of this group is shown by the following statistics :

| INCOME: | Rs. | Percentage of each to the total income of this group |
|---|---|---|
| Income from land . . . . | 17759 | 84·6 |
| Income from other sources . | 3235 | 15·4 |
| *Total* | 20944 | 100 |

| EXPENDITURE: | Rs. | Percentage of each to the total expenditure of this group |
|---|---|---|
| Cost of living . . . . . . | 9905 | 71·3 |
| Repairs of implements . . | 749 | 5·4 |
| Land revenue . . . . . . | 1780 | 12·8 |
| Interest on debt . . . . | 1461 | 10·5 |
| *Total* | 13895 | 100 |
| Total surplus . . . . . . | 7099 | |
| Percentage of total expenditure to the income from land . . . . . . . . | 78·2 | |

Putting the facts about the general economic condition of this group in a different way, we find that

| | |
|---|---|
| The average income per family is about . . | Rs. 583 |
| ,, ,, expenditure per family is about . . | ,, 386 |
| ,, ,, surplus per family is . . . . | ,, 197 |
| Per capita income is about . . . . . | ,, 127 |
| ,, ,, expenditure is about . . . . . | ,, 84 |
| ,, ,, surplus is about . . . . . | ,, 43 |

*Group II.* This group consists of 185 families which make both ends meet with the help of income from land and other sources. 20 of these families, however, derive no income from land. The following are the main facts about this group :

1. The average size of the family is . . . 4·9
2. The number of children per family is . . 1·25
3. The total amount of land held by all families is . . . . . . . . . . . . . . 1328 acres.
4. Land owned by the average family is . . 7 ,,
5. ,, ,, per head is . . . . . . 1·4 ,,
6. The total amount of land cultivated by all families is . . . . . . . . . . 1356 ,,
7. Land cultivated by the average family is . 7·2 ,,
8. Land cultivated per head is . . . . . 1·5 ,,
9. With the exception of 52 families, the rest are in debt. Their total debt amounts to . . . . . . . . . . . . . . . Rs. 42631
10. Indebtedness per family is about . . . . ,, 230
11. Indebtedness per head is about . . . . ,, 47

The following figures indicate the general economic position of this group :

| INCOME : | Rs. | Percentage of each to the total income of this group |
|---|---|---|
| Income from land . . . . | 50540 | 62·4 |
| ,, ,, other sources . . | 30436 | 37·6 |
| *Total* | 80976 | 100 |

| EXPENDITURE: | Rs. | Percentage of each to the total expenditure of this group |
|---|---|---|
| Cost of living . . . . . . . | 55628 | 83·3 |
| Repairs of implements . . . | 3171 | 4·8 |
| Land revenue . . . . . . . | 3883 | 5·9 |
| Interest on debts . . . . . . | 4068 | 6 |
| *Total* | 66750 | 100 |
| Total surplus . . . . . . . | 14226 | |
| Percentage of total expenditure to the net receipts from land | 132·1 | |

The following figures give a more clear idea of the economic condition of this group :

| | |
|---|---|
| The average income per family is about . . . . . | Rs. 438 |
| ,, ,, expenditure per family is about . . . | ,, 361 |
| ,, ,, surplus per family is about . . . . . . | ,, 77 |
| Per capita income is about . . . . . . . . . . . | ,, 89 |
| ,, ,, expenditure is about . . . . . . . . . | ,, 74 |
| ,, ,, surplus is about . . . . . . . . . . | ,, 15 |

*Group. III.* This is the largest of all the three groups and comprises 229 families, which are eking out a miserable existence from year to year, with their annual expenses running ahead of their income from all sources. 32 families in this group derive no income from land. The following are the main facts about this group :

| | | |
|---|---|---|
| 1. | The average size of the family is . . . | 4·9 |
| 2. | The number of children per family is . . | 1·6 |
| 3. | The total amount of land held by all families is . . . . . . . . . . . . . . | 608 acres |
| 4. | Land owned by the average family is . . | 2·7 ,, |
| 5. | Land owned per head is . . . . . . . | ·5 ,, |
| 6. | The total amount of land cultivated by all families is . . . . . . . . . . . | 775 ,, |
| 7. | Land cultivated by the average family is . | 3·4 ,, |
| 8. | Land cultivated per head is . . . . . . | ·7 ,, |

9. Of 229 families 73 are free from debt. The total indebtedness for this group comes to . . . . . . . . . . . . . . Rs. 20380
10. Indebtedness per family is about . . . ,, 89
11. Indebtedness per head is about . . . . . ,, 18

The general economic position of this group is indicated by the following figures :

| INCOME : | Rs. | Percentage of each to the total income of this group |
|---|---|---|
| Income from land . . . . . | 9725 | 53·5 |
| ,, ,, other sources . . | 8458 | 46·5 |
| *Total* | 18183 | 100 |

| EXPENDITURE : | Rs. | Percentage of each to the total expenditure of this group |
|---|---|---|
| Cost of living . . . . . . . | 22618 | 85·6 |
| Repairs of implements . . . | 1083 | 4·1 |
| Land revenue . . . . . . . | 772 | 2·9 |
| Interest on debt . . . . . . | 1939 | 7·4 |
| *Total* | 26412 | 100 |

Total deficit. . . . . . . . 8229
Percentage of total expenditure to the net income from land 271

To put the above facts about the general economic position more clearly,

| | Rs. |
|---|---|
| The average income per family is about . . . . | 79 |
| ,, ,, expenditure per family is about . . . | 115 |
| The average deficit per family is about . . . . . . | 36 |
| Per capita income is about . . . . . . . . . . . | 16 |
| ,, ,, expenditure is about . . . . . . . . . | 23 |
| ,, ,, deficit is about . . . . . . . . . . . | 7 |

Of the host of facts which we have mentioned above about the three economic groups, the principal ones are

summarised in the following table with a view to elicit the answer to the question for which we undertook the above calculations, namely, why more than half of the families inhabiting the village are living in an unsound economic condition.

Table showing the comparative condition of the three economic groups :

| | Group I | Group II | Group III |
|---|---|---|---|
| Number of families . . . . . . | 36 | 185 | 229 |
| Percentage of families to the total . | 8 | 41·1 | 50·9 |
| Size of average family . . . . . | 4·6 | 4·9 | 4·9 |
| Number of children per family . . | 1·3 | 1·3 | 1·6 |
| Land owned per head in acres . . | 3·9 | 1·4 | ·5 |
| Land cultivated per head in acres . | 3·7 | 1·5 | ·7 |
| Per capita income in Rs. . . . . | 127 | 89 | 16 |
| ,, ,, expenditure in Rs. . . | 84 | 74 | 23 |
| ,, ,, surplus (+) in Rs. . . | + 43 | + 15 | |
| or deficit (—) in Rs. . | | | —7 |
| ,, ,, indebtedness in Rs. . . | 88 | 47 | 18 |

The following conclusions are evident from this table :

(1) The size of the family is equally large in the second and the third groups ; the number of children is largest in the third group. But in spite of this there is no material difference in the composition of the groups so far as these aspects are concerned.

(2) The volume of indebtedness decreases as we pass on from the first to the third group, suggesting the operation of the tendency,[1] so ably established by Mr. Darling,

1 cf. "......In other words, debts postulate not only a debtor but a creditor, and, not only a need but also security; and in a country like India, where need is great and improvidence general, it may be said that *the better the security, the greater the debt.*" The Punjab Peasant in Prosperity and Debt, p. 197.

We may note, however, that this theory has a limitation in its application to this Presidency. This is shown by Dr. Mann's studies in which he finds that the poorer the class, the greater its debt.

to the effect that the better the security the greater the debt.

(3) The size of the area owned and cultivated steadily decreases as we go from the first to the third group, revealing that the smaller the size of the holding, the lesser the income and the greater the instability of the economic condition of the owners.

It is obvious from the above facts that the cause which is responsible for the poverty of the third, and by far the largest group, is the small size of the holding. We must, however, bear two important considerations in mind. Since there is a regular recurring deficit in the third group, (i) the burden of population and (ii) the incidence of debt are acutely felt in that group. Thus, though the primary cause of the poverty problem of this village is the small size of the holding, overpopulation and indebtedness aggravate the situation.

## POVERTY IN THE RACIAL GROUPS OF THE VILLAGE

It will be highly interesting to pursue the analysis further, and see if the same causes are responsible for the poverty among the people considered racially, that is, among the Kaliparaj and the Ujaliparaj. First of all we shall state the comparative position of these two main groups as a whole, and subsequently construct a table similar to the one given above, with a view to analyse the causes of their poverty.

Table showing the comparative economic position of the two racial groups : Kaliparaj and Ujaliparaj :

| | Kaliparaj | Ujaliparaj |
|---|---|---|
| Number of people (consumption units) | 1440 | 773 |
| ,, ,, families | 290 | 160 |
| Average size of the family | 4·9 | 4·8 |
| Average number of children per family | 1·5 | 1·3 |
| Total land owned in acres | 939 | 1634 |

Continued

*Continued*

| | Kaliparaj | Ujaliparaj |
|---|---|---|
| Total land owned per family in acres . | 3·2 | 10·2 |
| Total land owned per head in acres . . | ·6 | 2·1 |
| Total land cultivated in acres . . . | 1373 | 1356 |
| Total land cultivated per family in acres | 4·7 | 8·5 |
| Total land cultivated per head in acres | ·9 | 1·8 |
| Total income from all sources, in rupees | 82734 | 71068 |
| Total expenditure in rupees . . . . | 82241 | 67842 |
| Total indebtedness in rupees . . . . | 44433 | 50325 |
| The average income per family in rupees | 285 | 444 |
| The average expenditure per family in Rs. | 284 | 424 |
| The average surplus per family in rupees | 1 | 20 |
| The average indebtedness per family in Rs. | 153 | 315 |
| Per capita income in rupees . . . . . | 58 | 92 |
| Per capita expenditure in rupees . . . | 58 | 90 |
| Per capita surplus in rupees . . . . . | 0 | 2 |
| Per capita indebtedness in rupees . . . | 31 | 66 |

The facts obvious from this table are :

(1) The average size of the family among the Kaliparaj is larger than that among the Ujaliparaj ; the number of children in the former is larger than in the latter.

(2) The average size of the holding both owned and cultivated is smaller among the Kaliparaj than among the Ujaliparaj.

(3) Consequently, the income per head of the former group is smaller than that of the latter.

(4) The average Kaliparaj, therefore, lives just on the verge of poverty, whereas the average Ujaliparaj makes both ends meet with difficulty.

(5) According to Mr. Darling's thesis, the average Kaliparaj, with smaller income and less landed security, has a smaller debt. However, the debt, though small, will press more heavily on him than on the average Ujaliparaj because he has no surplus.

The following two conclusions emerge from the above facts :

(1) So far as the relative economic position of these two racial groups is concerned, the Ujaliparaj are better situated than the Kaliparaj.

(2) So far as the causes of their relative poverty are concerned, the same causes as mentioned in connection with the economic groups for the village as a whole, namely, the small size of the holding, over-population and indebtedness hold good.

A further analysis of each of these racial groups, divided into the economic groups we have adopted for the village as a whole, confirms the above-mentioned conclusions. This is evident from the following table.

| | Kaliparaj | | | Ujaliparaj | | |
|---|---|---|---|---|---|---|
| | Group I. | Group II. | Group III. | Group I. | Group II. | Group III. |
| Number of families . | 21 | 116 | 153 | 15 | 69 | 76 |
| Percentage of families to the total . . . | 7·2 | 40 | 52·8 | 9·4 | 43·1 | 47·5 |
| Size of the average family . . . . . | 4·7 | 4·6 | 5·2 | 3·7 | 5·3 | 4·5 |
| Number of children per family . . . . . | 1·5 | 1·1 | 1·9 | ·9 | 1·6 | 1 |
| Land owned per head in acres . . . . | 2·6 | ·7 | ·4 | 6·8 | 2·3 | ·9 |
| Land cultivated per head in acres . . | 2·7 | 1·1 | ·6 | 5·8 | 2 | ·8 |
| Per capita income in rupees . . . . . | 110 | 71 | 42 | 182 | 118 | 53 |
| Per capita expenditure in rupees . . . . | 72 | 60 | 54 | 124 | 94 | 77 |
| Per capita surplus (+) of deficit (−) in rupees . . . . . | +48 | +11 | −12 | +58 | +24 | −24 |
| Per capita indebtedness in rupees . . . . | 87 | 35 | 22 | 106 | 66 | 60 |

Thus the examination of the relative economic position of the two racial groups, both as aggregates and as divided into economic groups, convinces us of the validity of the conclusions already drawn regarding the causes of the poverty of the people in this village.

## SECTION II.

## CAUSES OF THE POVERTY OF ATGAM AND A RECONSTRUCTION PROGRAMME

The principal causes responsible for the poverty of this village, as we have seen, are :

(1) the small size of the holding,
(2) overpopulation, and
(3) indebtedness.

(1)*The small size of the holding* : We have seen in our examination of land and its distribution in the village, the nature of this problem. We may briefly repeat the leading tendencies established in that connection with a view to understand the relative importance of this cause of poverty.

(a) The land, as it is owned, is highly subdivided and fragmented. About 87 per cent. of the owned holdings are *uneconomic*, that is, they fall short of a fifteen-acre holding which is the minimum necessary for profitable cultivation.

(b) This situation, though slightly bettered by the consolidation of fragments in actual cultivation, remains yet serious from the standpoint of agricultural production, since about 88 per cent. of the cultivated holdings are uneconomic.

(c) This is the result of a tendency which has been in operation for a long time and it is probable that if left unchecked at this stage, it will make matters worse.

We have also seen how the small holding is responsible for low agricultural production, which is the same thing as poverty for the people of the village.

(2) *Over-population* : In the chapter III, we have seen that there are evident signs of a tendency towards over-population. These are :

(a) The birth-rate of the village is as high as 39.8

(b) The death-rate is also as high as 35.9

(c) The average expectation of life is as low as 27 years.

(d) There is a continuous annual exodus of people from this village to outside areas for supplementing their meagre earnings from land.

(e) The fact that the people of the village are not able to make both ends meet by their earnings in the village, but have to depend on external sources of income. This is evident from the following :

(i) Deducting the income from external sources, for the village as a whole, from its total net receipts from all sources combined, we find that the average income per family comes to Rs. 306, while the average expenditure per family, as we have seen in the last section, is Rs. 334.

(ii) Even taking the racial groups individually, a similar calculation shows that in the case of the Kaliparaj the average income per family comes to Rs. 260, the average expenditure being Rs. 284 ; and in the case of the Ujaliparaj the average income per family comes to Rs. 389 while the expenditure per family is Rs. 424.

(3) *Indebtedness* : Reviewing the operation of these two causes together, we find that on the one hand there is low production and on the other, there is an excess of population so far as the means of subsistence available in the village are concerned. There is an intimate relation between the two, each acting and reacting on the other. Over-population may be the cause of low production. It is equally true that low production may be the cause of over-population. At the present stage in the economy of this village both these forces are acting powerfully. We

have seen[1] that increasing population has accentuated the problem of sub-division which in turn has resulted in low production in agriculture. We can also see that low production, or the comparative poverty of the Kaliparaj, is associated with greater fecundity.[2] In other words, the vicious circle, namely, over-population leading to poverty, and poverty in turn leading to over-population, is complete. Indebtedness is the inevitable consequence. Is there any way out of it? This is the difficult question we must now try to answer.

## THE RECONSTRUCTION PROGRAMME

The state of affairs is not so hopeless as it seems to be at first sight.

*Agricultural production* : All throughout this work we have seen that there are yet great potentialities which, if tapped, can materially raise the low level of agricultural production. We shall briefly mention them with a view to indicate a programme for the economic reconstruction of the village. The following table summarises the principal defects in the economic organization of this village, which are responsible for low returns from land, and their respective remedies ; most of these have been already mentioned.

1 The instance of the Kikla's family is illustrative of this remark; Vide Chapter VII.

2 We have seen in Chapter III that the Kaliparaj have greater fecundity than the Ujaliparaj. In the preceding section we have seen that they are poorer than the Ujaliparaj.

| Defects in the Economic Organization of the village | Remedies |
|---|---|
| 1. Uncertainty of rainfall and inadequacy of water-supply. | 1. Irrigational facilities and experiments in steam-boring of wells. |
| 2. Poverty of the soil. | 2. Manuring and intensive culture. |
| 3. Sub-division and fragmentation of land. | 3. Compulsory legislation to prevent further subdivision and fragmentation, and permissive legislation to consolidate holdings. |
| 4. Inefficiency of cattle. | 4. Careful breeding, better feeding and careful housing of cattle, and spread of the knowledge of cattle diseases. |
| 5. Use of primitive implements. | 5. Gradual introduction of improved implements. |
| 6. Scarcity and inefficiency of labour. | 6. Resumption of manual work by the high class people, introduction of piece wages, or a system giving a share to the labourer in the produce of the farm. |
| 7. Uneconomical marketing. | 7. Co-operative marketing. |
| 8. Lack of agricultural education. | 8. Dissemination of agricultural and rural education. |

If these defects in the economic organization, or what may be otherwise called causes of low production in agriculture, are removed by the kind of measures suggested above, the income of the village, from agriculture, which is its principal occupation, can be greatly enhanced.

*Subsidiary occupations* : The improvements mentioned above refer to the defects in the existing economic organization of the village. There are yet avenues of income which have hitherto not been tapped at all. These are the subsidiary occupations for which raw materials already exist in this village. Of these the principal ones are mentioned below :

(1) rice-hulling,
(2) manufacturing of gul on an organised scale,
(3) canning of mango-pulp,
(4) manufacturing of vinegar from toddy,[1]
(5) manufacturing of paper from a species of grass called 'Rohdo', which abounds in the village,
(6) spinning and weaving,
(7) animal husbandry,
(8) poultry-rearing,
(9) manufacturing of blankets,
(10) manufacturing of mortar, and
(11) manufacturing of bricks.

If some of these industries are started, they will prove doubly advantageous to the people. In the first place, they will supply an additional source of earning to those who annually migrate to outside areas in search of employment. Moreover, they will serve as openings to absorb the agricultural population likely to be displaced by any scheme of consolidation of holdings.

*Reduction in expenditure* : There are only two ways of increasing material wealth : either increased income or decreased expenditure, or both together. We have suggested the ways in which the annual income of the village under study can be augmented. We shall now suggest a few methods of reducing expenditure. Some of these depend upon the people themselves, and others depend upon other agencies interested in the economic progress of the people. Of the first category, there are two :

1 The village and its surrounding area abound in date-trees from which toddy is extracted.

(1) The people should regulate their habits of life in a wise manner. We have frequently stated that the Kaliparaj have an insatiable desire for intoxicating drinks, in which they indulge excessively. This devil of drink not only debilitates their health, but often becomes a source of quarrels, which obstruct close co-operation in production and distribution.

(2) The members of some of the castes inhabiting the village, who spend lavishly on social ceremonies, should reduce such expenditure as far as possible.

Among other methods of reducing expenditure not dependent on the will of the people are :

(1) Land revenue, though obviously not an important cause of the poverty of the people of this village, (because in this village the richer the class, the larger the landed property it owns and hence the larger the land revenue it pays) still acts as a burden to a majority of the families inhabiting the village who are faced with recurring annual deficits. Some relief under this head should be granted to these people, to uplift them as early as possible to a sound economic level. Some relief should also be granted to the remaining two groups, with a view to enable the village as a whole to work out the reconstruction programme.

(2) Capital should be made available to the people through the local co-operative society at a low rate of interest, say, 5 to 7 per cent. for financing the current needs of agriculture and other subsidiary occupations, which ought to be started to solve the poverty problem of the village. But of greater importance at the present stage in the economy of this village is the question of the redemption through a Land Mortgage Bank, of old debts, which virtually act like a mill-stone, crushing down any spirit that the villager may have for initiating reforms.

In view of the importance of this cause of poverty viz. indebtedness, we shall consider it separately in the next chapter, along with the connected problem of rural credit.

## CONCLUSIONS

The following are the conclusions from this chapter :

(1) More than half of the families residing in the village live below a reasonable standard of living, as understood by them.

(2) The principal causes of this state of affairs are (a) low production, (b) an excessive population depending on land for its maintenance and (c) indebtedness.

(3) This poverty problem of the village can be solved by

(a) preventing further sub-division and fragmentation of land and encouraging the consolidation of holdings ;

(b) better tillage and manuring of the soil ;

(c) providing ample irrigational facilities in the manner suggested ;

(d) increasing the efficiency of cattle by careful breeding and better feeding, careful housing and tending ;

(e) introduction of improved implements ;

(f) relieving the scarcity of labour, partly by the high-class people resuming field-work, and partly by inducing hired labourers to stay in the village by offering piece-wages, or a share in the produce of the land ;

(g) introducing co-operative marketing both of farm-products and necessaries ;

(h) providing capital at a low rate of interest, and removing the burden of old debts by starting a Land Mortgage Bank ;

(i) granting some relief in land revenue ; and

(j) dissemination of rural education with a view to enable the people to understand their own problems and work out their own solutions.

## CHAPTER—XV

# CREDIT AND INDEBTEDNESS

### INTRODUCTORY REMARKS

In the last chapter we have noted that indebtedness is a serious burden and acts as a clog to the economic progress of the people. How serious the problem is can be realised when one remembers that the average Atgam dweller just lives from hand to mouth and yet has a debt of Rs. 43. We propose to examine in this Chapter, what exactly this problem of indebtedness is, and as it is closely connected with the organization of agricultural credit in general, and the co-operative society of the village in particular, we shall deal with them also. For the purposes of discussion we have divided this chapter into three sections. The first deals with the problem of indebtedness including the extent, nature and causes of indebtedness ; the second with the organization of agricultural credit in general, and the third with the working of the local co-operative society in particular.

## SECTION I.

### THE PROBLEM OF INDEBTEDNESS

Under this heading we propose to examine :

(1) the extent of indebtedness,

(2) the special features of indebtedness, and

(3) the causes of indebtedness.

(1) *The extent of indebtedness* : The following figures show the extent of indebtedness in the village.

| | | Rs. |
|---|---|---|
| (i) | The total debt amounts to . . . . . . | 94758 |
| (ii) | Average debt per family is about . . . | 211 |
| (iii) | The per capita debt is about . . . . . . | 43 |
| (iv) | Average debt per family among the indebted families is about . . . . . . | 291 |

There are two ways of looking at the extent of indebtedness, in order to realise the true position. (i) We may either study the actual figures of debts, divided into suitable frequency groups, or (ii) we may judge of the extent of indebtedness in relation to income, by devising suitable frequency groups.

Looked at in the first way, the following figures give a picture of the extent of indebtedness :

| | Number of families. |
|---|---|
| Free from debt | 124 |
| In debt | |
| Below Rs. 50 | 48 |
| From Rs. 51 to Rs. 100 | 61 |
| ,, ,, 101 to ,, 200 | 57 |
| ,, ,, 201 to ,, 300 | 69 |
| ,, ,, 301 to ,, 400 | 22 |
| ,, ,, 401 to ,, 500 | 19 |
| ,, ,, 501 to ,, 600 | 15 |
| ,, ,, 601 to ,, 700 | 8 |
| ,, ,, 701 to ,, 800 | 4 |
| ,, ,, 801 to ,, 900 | 5 |
| ,, ,, 901 to ,, 1000 | 2 |
| ,, ,, 1001 to ,, 1500 | 11 |
| Above Rs. 1500 | 5 |
| *Total* | 450 |

Looked at in the second way, the following frequency table shows the extent of indebtedness :

| | |
|---|---|
| Number of families free from debt | 124 |
| ,, ,, ,, in debt | |
| up to 1/10 of their income | 41 |
| from 1/10 to 1/2 of their income | 102 |
| ,, 1/2 to 1 of their income | 90 |
| ,, 1 to $1\frac{1}{2}$ of their income | 53 |
| ,, $1\frac{1}{2}$ to 2 of their income | 19 |
| ,, 2 to $2\frac{1}{2}$ of their income | 13 |
| ,, $2\frac{1}{2}$ to 3 of their income | 7 |
| ,, 3 to $3\frac{1}{2}$ of their income | 1 |
| *Total* | 450 |

In view of the proverbial indebtedness of villages in our country, it may appear to be a consolation that in this

village at least 124 families out of 450, or about 27 per cent., are free from debt. But unfortunately the real state of affairs is not so rosy as this may indicate. Out of these 124 families only 24 are enjoying a really sound economic position. Of the rest, 43 families have little landed property and are given to migratory habits and hence command little credit. Three consist of one man, and four of one woman each. Nobody will ever lend to these families as they have no sound basis of credit. The remaining fifty are mere labourers and are in the same position.

Again, though it appears that the debt in the case of 71 per cent. of the indebted families is less than their annual income, it should be remembered that they are so situated that on the advent of an adverse season they would find themselves in a helpless condition. The fact that in the case of 29 per cent. of the indebted families, debt exceeds their annual income, further shows the extent of the seriousness of the problem.

Having thus examined the extent of indebtedness, we shall now pass on to a consideration of some of the important features of the problem of debt.

(2) *The main features of indebtedness.*

(a) The first feature of indebtedness that we noted in our house-to-house census was that a majority of families resorted to more than one creditor.[1] Two typical instances will suffice to illustrate this remark :

CASE 1.

| | | | |
|---|---|---|---|
| Schedule No. 15, owed in May 1927. | Rs. | 80 | to a Parsi—Atgam. |
| | ,, | 80 | ,, ,, Bania— ,, |
| | ,, | 60 | ,, another Bania—Atgam |
| | ,, | 250 | ,, a Brahmin—Atgam. |
| | ,, | 80 | ,, ,, Bania—Kalwada. |
| | ,, | 10 | ,, the local Co-operative Credit Society. |
| | ,, | 11 | ,, a Bania—Bulsar. |
| | ,, | 16 | ,, several others. |
| *Total Rs.* | | 587 | |

1 Cf. "Thus it was discovered that cultivators who borrow much rarely deal with a single money-lender".
The Economic Life of a Bengal District, Jack, p. 97.

CASE 2.

| | | |
|---|---|---|
| Schedule No. 54, owed in May 1927. | Rs. 350 | to a Bania—Bulsâr. |
| | ,, 400 | to a Brahmin—Atgam. |
| | ,, 20 | ,, ,, Bania—Kalwada. |
| | ,, 25 | ,, ,, ,, —Atgam. |
| | ,, 100 | ,, others. |
| *Total* | 895 | |

It is obvious that increased facilities for credit, due to the growth in the number of money-lenders, have been abused by the illiterate cultivator.

(b) The second feature of indebtedness is, as we have already noted in the preceding chapter, that the greater the credit, the greater the volume of debt. There is, however, another side to this tendency which must be considered a source of anxiety. The following table shows that though the volume of indebtedness is least in the last group, the burden of indebtedness is the heaviest. Thus indebtedness is a factor that is likely to perpetuate their poverty.

*Table showing the volume and burden of indebtedness* :

| | Group I | Group II | Group III |
|---|---|---|---|
| Land owned per head in acres . . . . | 3.9 | 1·4 | ·5 |
| Indebtedness per head in Rupees . . . | 88 | 47 | 18 |
| Proportion of per capita debt to per capita income . . . . . . . . . . . . | ·67 | ·6 | 1·1 |

(c) The third is, however, to some extent, a redeeming feature of the situation. Of the total debts amounting to Rs. 94758, only Rs. 10679, or about 11.3 per cent., is lent on the security of land (305 acres).

Of these Rs. 10679, Rs. 6989 are lent on the 'ordinary mortgage' of 201 acres; Rs. 350 only on the 'possessory mortgage'[1] of 33 acres; and Rs. 3275 on

1 Under this kind of mortgage land is handed over to the mortgagee to be retransferred to the mortgagor on payment of the price of redemption.

the third kind of mortgage known as Sarti Vechan or deferred sale,[1] of 61 acres. Thus the major portion of the mortgaged land is pledged on the 'ordinary mortgage'. This kind of mortgage does not deprive the ryot of his land as the other two forms are likely to do. Sowkars generally adopt the third form of mortgage with a view to wrest land from their clients. About 242 acres out of 305, or about 79 per cent., are mortgaged to the Society in the ordinary way. Thus the Society prevents the passage of land from the agriculturists to the money-lenders and in this way renders an invaluable service to its members.

(3) *Causes of Indebtedness.*

We shall now pass on to the principal causes of indebtedness. Minute enquiry regarding this topic leads us to believe that the causes of indebtedness in the village are mainly two :

(i) Social : The performance of social ceremonies at marriages, births and deaths, which frequently occur, makes a heavy demand on the purse of the cultivator. The force of social custom compels him to incur debt.

(ii) Economic : The low level and uncertainty of agricultural production frequently drive the average cultivator to the door of his money-lender.

## SECTION II.

## THE ORGANIZATION OF AGRICULTURAL FINANCE IN THE VILLAGE

Under this heading we propose to discuss three things :

(1) facilities for loans,
(2) rate of interest, and
(3) purpose or use of loans.

1 In this type of mortgage, the lender promises to return the land of the mortgagor on payment of the mortgage debt within a definite period. Generally this is entered in Government records as a purse sale and hence usually it passes to the hands of the creditor without difficulty as soon as the definite period is over.

(1) *Facilities for loans.*

The sources of borrowing in this village fall into two classes : (i) money-lenders and (ii) the local co-operative credit society.

(i) There are at present two professional money-lenders in the village in addition to a few non-professional and petty money-lenders. A few of these latter are what are called 'Janasudhar' sowkars or those who lend money only on the security of ornaments. Besides these, there is a host of professional and non-professional money-lenders residing outside the village, some in the neighbouring villages and others at Bulsar, who have dealings with the people of this village.

(ii) The Co-operative Society was started in 1917 and has during the last ten years become a powerful force in the economic life of the village. It serves as an organised institution, advancing loans to its members.

*Relation between* (i) *and* (ii) : The primary object of the former group is usually to increase the volume of indebtedness of the client, with a view to keep him under control, and thus make him a steady source of commission and interest to themselves. The primary object of the Society is to enable its members to be free from debt, and to increase their earning capacity and enable them to stand on their own legs in course of time. Conflicting as these two aims are, the relations between the money-lenders on the one hand, and the Society on the other, are in this village cordial, thanks to the forceful personality of the chairman of the Society and to the steadily increasing stability of the Society as a financing agency.

(2) *The rates of interest.*

There is a great difference between the rate of interest charged by the money-lenders and that charged by the Society. Even among the money-lenders the rates of interest vary with the nature of security offered. With the Society the rate of interest is the same whether the loan is advanced on personal or landed security. The fol-

lowing figures show the minimum and maximum rates of interest charged by money-lenders according to the nature of security offered :

| Nature of the Security | Minimum rate of interest | Maximum rate of interest |
|---|---|---|
| | Percentage | Percentage |
| Land . . . . . . | 12 | 18 |
| Silver ornaments . . | ,, | ,, |
| Gold ,, . . | 10 | 12 |
| Personal . . . . . | 18 | 25 |

The money-lender, as a rule, charges some commission at the time of advancing the loan. This varies from 6 to 9 per cent. when loans are taken on landed or personal security, and 3 to 6 per cent. when they are taken on the security of gold ornaments.

The Society does not charge any commission. On the contrary, it teaches people thrift by making it a rule for them to deposit in their own name 10 per cent. of the loan they borrow. The rate of interest charged by the Society is 9 per cent. for all loans of Rs. 50 or more, and 9½ per cent. for all loans below Rs. 50. There is, however, one noteworthy feature regarding this Society, namely, that it has introduced a system of rebate which is calculated at 1 per cent. on the loan repaid and is given to one who repays the debt within due time. This device was introduced only last year and it is too early to announce any judgment on its effects.

*The Pathan—a menace* : While discussing the rate of interest there is one thing of importance which deserves notice. During the course of our enquiry on this subject we came across one or two cases in this village where families have borrowed money from Pathans, who are notorious in this area for charging as high a rate of interest as 150 to 300 per cent. They give, say, Rs. 10 and will demand Rs. 15 or Rs. 30 even within a few months. Not only do they charge an exorbitant rate of interest

but they also use physical force in recovering their money. We believe that they are a great menace to the people in the surrounding area and should be checked in their rapacity, by legislation.

(3) *The purpose or use of loans.*

The purposes for which the debt has been incurred could not be determined because of three reasons : (1) the Kaliparaj borrow petty loans from one and the same sowkar frequently during the year for different purposes ; (ii) they also borrow from several sowkars, one after another, during the same year ; and (iii) in several cases debts run over more than five years. Under the circumstances, a detailed inquiry into the nature of each transaction of debt was impossible. We have, however, studied this aspect in the next section, so far as the loans advanced by the Society are concerned.

## SECTION III.

## THE CO-OPERATIVE CREDIT SOCIETY OF THE VILLAGE

We are happy to find that in this village the task of reconstruction has already been begun, of course, in a small measure, by the Co-operative Credit Society. In order to gauge properly the extent to which it has contributed to the economic reconstruction of the village, we must glance at the economic history of the area prior to its introduction, as well as during the period it has been in existence. The history of the village prior to its introduction divides itself into two parts : that referring to the period prior to 1914 and that referring to the period 1914 to 1917.

*The economic history of the village.*

In our investigations on this subject, we have been able to gather the following impressions about the condition of the village before 1914 and from 1914 to 1917. The main points show how the dominating position of the

administrative officer in the village—the Patel—results in the good or otherwise of the people. We found that the administration of the village prior to 1914 was inefficient because the Patel—a member of the Kaliparaj—was a toper and lay stupefied for days under the date trees in his field. Some of the Kaliparaj themselves gave us to understand that he frequently harassed them by demanding hens or goats to make a feast. The village school-master informed us that in 1913, when he was transferred to this place, the village was in a state of chaos and no one dared to enter it after sun-set lest he be robbed of his possessions. (ii) As the administrative head was inefficient there was none to curb the rapacity of the money-lenders who numbered more than fifteen at this time. They wielded great influence, as the Patel himself was heavily indebted to one of them, and usually sided with them in the settlement of disputes. (iii) Many Kaliparaj families indulged in excessive drink in imitation of the Patel, who belonged to their community. There was none to check these people nor to lead them aright. The interest of the money-lenders lay in encouraging this habit of drink with a view to domineer over them. Far from making any attempt to reform them, the sowkars vied with one another in giving large credit to the Kaliparaj. The result was that on the eve of the second period 1914-17 the autocratic power of the sowkars was as great, as the poverty and indebtedness of the people, were apalling.

The second period began with the Patelship of Mr. Manibhai, who still holds the position. He exchanged his promising appointment in the B.B.& C.I. Railway, for the headmanship of this village, with the avowed object of trying his best to uplift the masses from the burden of debt. This was certainly a task beset with numerous difficulties. In spite of the opposition of vested interests and the lack of ready response from the people, he carried on patiently his work of reform during this period. He frequently visited the cottages of the Kaliparaj and

sympathetically tried to understand their difficulties. Finding that credit was the crying need of this people and the kind of the creditor that they had was the source of their indigence, he introduced the co-operative credit society in the village.

*The history of the Co-operative Credit Society.*

The Co-operative Credit Society of Atgam was registered on 31st May 1917 and commenced its operations on 13th June of the same year, with a small capital of Rs. 166[1] —Rs. 150 were deposited by Mr. Manibhai and Rs. 16 were received as entrance fees. Rs. 163 were loaned out on that day to fifteen Kaliparaj farmers. From this modest beginning the society has made great progress during the last ten years. This will be evident from the following table :

*Table showing the consolidated position of the Atgam Co-operative Credit Society from 1917-1926.*

| Year[2] | No. of members | Members' deposits in Rs. | Non-members' deposits in Rs. | Reserve fund in Rs. | Total turnover in Rs. | Rate of interest on loans to members | Rate of interst on loans from non-members |
|---|---|---|---|---|---|---|---|
| 1917 | 79 | 250 | 450 | — | 3271 | $9\frac{3}{8}$ % | 7 % |
| 1918 | 105 | 169 | 2500 | 71 | 3879 | ,, | ,, |
| 1919 | † | 631 | 3920 | 113 | 4732 | ,, | ,, |
| 1920 | 148 | 1278 | 4055 | 181 | 5763 | ,, | ,, |
| 1921 | 156 | 1935 | 4455 | 430 | 6976 | ,, | ,, |
| 1922 | 176 | 2745 | 4610 | 568 | 10378 | ,, | ,, |
| 1923 | 165 | 4006 | 7787 | 799 | 13012 | ,, | ,, |
| 1924 | 183 | 5343 | 9677 | 1204 | 16477 | ,, | ,, |
| 1925 | 194 | 6990 | 11929 | 1457 | 20288 | ,, | ,, |
| 1926 | 195 | 6380 | 12146 | 1788 | 20708 | 9 % | 6 % |

1 This information has been gathered from the records of the Society.
2 The year means the financial year; for instance 1917 means 1st April 1917 to 31st March 1918.
† Not available.

The following conclusions are obvious from this table :

(1) The Society has made great progress during the last ten years of its existence. This is indicated by the steady increase (a) in the number of its members, (b) in its total turnover ; (c) in the amount of members' deposits and (d) by a similar expansion of the reserve fund. It may be noted that members' deposits and reserve fund are the two pillars of the financial structure of any co-operative credit society.

(2) The fact of its increased financial stability is indirectly attested to by (a) the constant increase in the non-members' deposits—which suggests that the confidence of outsiders in the financial position of the Society has increased : and by (d) the fall in the rate of interest on loans from non-members—which implies that the supply of deposits from external sources is considerable.

(3) Finally, the rate of interest on loans to its members has also decreased. This forcibly shows that the real function for which such societies are started, namely, to make capital available to its members at as low a rate of interest as possible, has been discharged by the society. This ability on the part of the Society to reduce its rate of interest on loans is an incontrovertible proof of the fact that the financial position of the society is sound.

We may note in passing two facts of great importance : (i) that the Society is conducting its work without the assistance of the local District Bank, for the last four years ; and (ii) that the deposits from non-members are received from twelve different places, including Bombay and Surat, thanks to the indefatigable energy of its founder, who is at present its chairman.

## SERVICES RENDERED BY THE SOCIETY

*Low rate of interest* : From this historical review of the working of the Society, it is evident that the most important service it has rendered to its members is to make capital available to them at a low rate of interest.

*Encouragement to the productive use of loans*: Another equally important service it has rendered to them is to direct them from the unproductive to the productive use of capital as far as possible. This is demonstrated by the following table showing the purposes for which loans were advanced to the people during the last ten years of its existence :

| Purpose of the Loans | Percentage of each to the total loans advanced during the decade | |
|---|---|---|
| I PRODUCTIVE[1] | | |
| 1. Purchase of land | 5·3 | |
| 2. Payment of land revenue | 2·5 | |
| 3. Purchase of cattle | 10·1 | |
| 4. ,, ,, grass | 2·8 | |
| 5. ,, ,, seeds | 8·7 | |
| 6. ,, and repairs of carts | 1·7 | |
| 7. Financing local trade | 5·7 | |
| 8. Expenses on cultivation | 9·3 | |
| 9. Redemption of old debts and land | 28·1 | |
| 10. *Building and repairing of houses* | 10·4 | |
| *Total* | | 84·6 |
| II UN-PRODUCTIVE[1] | | |
| 11. Domestic expenditure | 4·5 | |
| 12. Celebration of marriage | 10·2 | |
| 13. Performance of death ceremonies | ·7 | |
| *Total* | | 15·4 |
| *Grand Total* | | 100 |

[1] The classification of purposes into 'productive' and 'unproductive' is somewhat arbitrary. The only two items which we have included under 'productive', and which may be objected to, are 'redemption of old debts and land' and 'building and repairing of houses'. The reason for classifying the first as 'productive' is that the burden of indebtedness acts as a powerful deterrent to agricultural production; that for the second is that the cultivator cannot do without a house to live in and to store his implements and keep his cattle—the main capital goods used in his wealth-production activities.

Thus, about 85 per cent. of the total sum advanced during the last ten years is for productive purposes.

*Debt-redemption* : A minute scrutiny of the above table shows that the Society has done another piece of valuable work in the interest of its members. It is that it has advanced the largest amount of loans for the redemption of old debts. The actual sum thus utilised is Rs. 19423 out of Rs. 69139, the total loan advanced during the last decade. Old debts, as we have already noted, act as a dead-weight on the energy and enterprise of the farmer and obstruct all kinds of progress. The Society undertook to work out a scheme of debt redemption in the year 1918-19. Ever since that time the scheme has been zealously pursued. Its success is obvious from the fact that out of 43 families who were granted loans of more than Rs. 100 each by the Society for the redemption of old debts, 33 or 76 per cent. are at present living in a sound economic condition.

It is interesting and instructive to study the way in which the scheme was worked. The chairman of the Society, Mr. Manibhai, persuaded the sowkars of some of the members of the Society to give him an account of their dues from the latter. He then got the sowkars to accept a lump sum in settlement of the loan, which would be less than the amount legally due. It was always argued that the sowkar was the richer man who could forego a few rupees due from his debtor. In fourteen cases, which we carefully went through, we found that only Rs. 4155 were paid though the total dues claimed amounted to Rs. 6779.

## THE CAUSE OF THE SUCCESS OF THE SOCIETY

This discussion of the working of the Society leads to the conclusion that it has been a great success. The main cause of this success is a policy of cautious finance and vigilant recovery. As a rule, loans are not given by the Society for unproductive purposes. When it gives,

it does so only on the security of the land of the borrower. In the case of likely defaulters it follows the same policy. This is demonstrated by the following table :

Out of 26 cases of mortgages made to the Society and not redeemed till the year of enquiry, the following were the purposes of loans advanced :

| | | No. of cases |
|---|---|---|
| 1. | Redemption of old debt . . . . . . . . | 11 |
| 2. | Celebration of marriage . . . . . . . . | 4 |
| 3. | Partly (1) and partly (2) . . . . . . . . | 3 |
| 4. | Purchase of land . . . . . . . . . . | 2 |
| 5. | ,, ,, bullocks and house repairs . . | 1 |
| 6. | Partly (1) and partly purchase of a cart . . | 1 |
| 7. | Building a house . . . . . . . . . . | 1 |
| 8. | Trading . . . . . . . . . . . . . | 1 |
| 9. | Purchase of bullocks . . . . . . . . | 1 |
| 10. | Partly (1) and partly (9) . . . . . . . . | 1 |

The other feature of the policy, namely, vigilant recovery, is shown by the following accounts of two typical members of the society.

CASE I.* FAMILY, SCHEDULE No. 145.

| Date | Amount borrowed in Rs. | Amount repaid in Rs. | Outstanding loans in Rs. |
|---|---|---|---|
| 24- 3-18 | 40 | — | 40 |
| 23- 1-19 | — | 30 | 10 |
| 22-12-19 | — | 10 | — |
| 25- 3-20 | 50 | — | 50 |
| 14-12-20 | — | 50 | — |
| 13- 1-26 | 50 | — | 50 |
| 30-12-26 | — | 25 | 25 |
| 31-12-26 | — | 25 | — |
| 3- 4-27 | 150 | — | 150 |

* In both these cases payments of interest are ignored for the sake of simplicity.

CASE II.* FAMILY, SCHEDULE No. 248.

| Date | Amount borrowed in Rs. | Amount repaid in Rs. | Outstanding loans in Rs. |
|---|---|---|---|
| 22- 3-18 | 50 | — | 50 |
| 18-12-18 | — | 33 | 17 |
| 20- 1-19 | — | 17 | — |
| 12- 1-22 | 115 | — | 115 |
| 12-11-22 | — | 70 | 45 |
| 26-11-23 | — | 45 | — |
| 27- 2-24 | 220 | — | 220 |
| 15-12-24 | — | 100 | 120 |
| 9- 3-26 | — | 100 | 20 |
| 18-12-26 | — | 20 | — |
| 9- 1-27 | 125 | — | 125 |
| 1-12-27 | — | 95 | 30 |
| 10-12-27 | — | 30 | — |

These accounts again show that the people are being taught the habit of regular banking.

## THE WORK OF THE SOCIETY

The services rendered by the Society may be thus summarised.

(i) It has made capital available to the people at a low rate of interest.

(ii) It has diverted the people from the unproductive to the productive use of loans.

(iii) It has, in some cases, removed the burden of debt that checked the enterprise of the farmer, and increased his earning capacity.

(iv) By its policy of vigilant recovery it has taught the people the habit of regular banking.

(v) It has also enabled a few members to realise the advantages of deposit-banking and thus cultivate the habit of thrift.

* In both these cases payments of interest are ignored for the sake of simplicity.

(vi) It has acted as an uplifting force among the Kaliparaj, who constitute the bulk of its members, by not only improving their economic condition but also by giving regular training in its working to some of them who are placed on its managing committee.

Over and above these services of economic and educational character, it has also rendered some social service.

(vii) It was through its agency that some bye-lanes and small fair-weather tracts of the village were repaired from a contribution by the Social Service League, (Bombay Branch) supplemented by subscriptions raised in the village.

(viii) Out of the profits of the Society some portion is anually set aside, to be used on charitable purposes, like giving clothes or corn to the poor residents of the village.

It may be of interest to note that it contributed a modest sum of Rs. 12½ to the Poona Agricultural Show Fund and Rs. 55 to the Gujarat Flood Relief Fund.

It is obvious from the discussion so far made that the Co-operative Society of the village has become a powerful force in the social and economic life of the people. It is, however, necessary to remember that there is yet considerable work to be done by the Society before it can claim to have really remoulded the life of the people.

## WORK TO BE DONE BY THE SOCIETY

Minute examination of the accounts of the Society shows that, out of 195 members 30 do not at present deal with it. Of these only one can get loans at a rate of interest lower than that of the Society. A few others do not require loans annually. But the majority of them have ceased to deal with the Society because of its policy of cautious finance and careful recovery. This majority has to be brought back under its fold by persuasion and reasoning. Moreover, at present the Society depends for its finance on outsiders. This element of dependence must be removed.

THE NECESSITY OF A LAND MORTGAGE BANK

Finally, in this connection, there is an important fact to be noted. It is that the members who are at present dealing with the Society were found, in May 1927 when we took the census of indebtedness, to have an external debt of Rs. 36,419. Though some of it is of a temporary character, the major portion is permanent. This fact often clogs the rapid progress of the Society and serves as the cause of delay in the recovery of its dues. We have seen that the Society has already redeemed old debts to the extent of Rs. 19,423, and we think that looking to its present position, it can hardly spare as much money as is necessary to liquidate this large external debt. Thus the necessity of a Land Mortgage Bank for removing the burden of outside debt is obvious.

## CONCLUSIONS

The following are the main conclusions from this chapter :

(1) The problem of indebtedness for the village as a whole is quite serious.

(2) Though the successful working of the Co-operative Credit Society has modified the situation to some extent, the problem of external debt of its members, which is incurred obviously at high rates of interest, demands an urgent solution.

(3) In view of this, the necessity of establishing a Land Mortgage Bank (for the Taluka or District in which this typical village is situated) is obvious.

CHAPTER—XVI

# THE PEOPLE AND THE STATE

## INTRODUCTORY REMARKS

It will have been obvious by this time to what extent the government can influence the life of the people, partly by initiating themselves, and partly by encouraging the people to work out, a programme of reconstruction. In view of this we propose to study in this chapter the existing relations between the people and the state.

The State, or the government, is connected with the people in two ways : (i) it receives revenue from the people and (ii) spends it so as to promote the welfare of the people. To discharge this two-fold function is devised the whole machinery of administration. We shall therefore divide the discussion of the relation between the people of the village and its government into two parts : one dealing with government dues and village welfare ; the other dealing with the administrative machinery. We shall discuss the latter first.

## ADMINISTRATION

The immediate representatives of the government in a village are the Patel and the village accountant. In the case of the village under study the functions of a Police and a revenue Patel are combined in one man. As a Police Patel he is expected to preserve peace and order in the village, keep the local magistrate constantly informed as "to the state of crime and all matters connected with the village-police, the health and general condition of the community in his village", [1] and to assist all superior

1. Vide Section 6 of the Bombay Village Police Act, 1867. Besides those mentioned above, there are several other duties of a Police Patel which are defined in this Act.

officers who visit the village. To assist him in these functions he has six Dheds who constitute the village Police force. As a revenue Patel he has to collect land revenue from the people within the prescribed periods and remit it to the government treasury at Bulsar.

The village accountant 'frames all written returns and proceedings for the Police Patel.'[1] Most of these returns, refer to the collection of land revenue from the village.

Besides these immediate representatives of the government there are a number of other representatives of the State who visit the village periodically. These officers belong to different departments of government. We shall briefly note who they are and how they come in contact with the people.

*Revenue Department* : There are five officers of this Department who visit the village. They are :

(1) The Circle Inspector,
(2) The Avalkarkun,
(3) The Mamlatdar,
(4) The Assistant or Deputy Collector, and
(5) The Collector of the District.

(1) The Circle Inspector usually visits the village three or four times a year, and sometimes even more frequently, if circumstances demand it. As a rule he visits the village after the rainy season in December or January to examine the register of crops written by the village accountant and check the entries of crops. Every time he comes to the village he inspects the register of births and deaths written by the Patel of the village. If there is any dispute in matters connected with revenue or survey, his presence is required.

(2) The Avalkarkun (the subordinate Taluka Magistrate) usually visits the village once or twice a year, mostly for the purposes of revenue and sometimes for deciding some matter at issue between the people and the State.

(3) The Mamlatdar, (the Taluka Head Magistrate) as a rule, visits the village once a year. Sometimes he visits

1 Vide Section 7, Ibid.

it more often. Whenever he comes he inspects the revenue registers, and birth and death registers, and makes other general enquiries about the village.

(4) and (5) Above the Mamlatdar of the Taluka are the Assistant or Deputy Collector, and the Collector of the District. Each of them camps at this village every third or fourth year. As a rule, either of them once examines all the village records on the spot, or at the Bulsar Kacheri.

*Police Department* : Immediately superior to the Police Patel of the village is the constable. Above him is the Head Constable and then the Fojdar or the Sub-Inspector. The first, or the second, pay about half-a-dozen visits to the village every year. The things he enquires after are usually, the trouble, if any, caused to the people by any wandering tribe or rabid dogs ; and the presence of any doubtful criminal or crime. The Fojdar visits the village generally once a year. If, however, any murder or other crime occurs, he has to be present in the village.

*Excise Department* : The taluka Excise Inspector annually pays sudden visits to the village, with a host of police, to detect illicit attempts, if any, made at manufacturing liquor.

*Agricultural Department* : There is one Overseer of this Department for the Bulsar Taluka. Above him is the District Agricultural Overseer. These officers rarely visit the village.

*Veterinary Department* : There is a Veterinary Hospital at Bulsar, but the officer in charge thereof never visits the village unless called for. We are informed that he has been to this village only twice during the last twelve years. The second time he visited the village, in February last, was only to inquire after the health of the breeding bull imported by the people of the village from the agricultural farm at Athwa.

*Vaccination Department* : The local taluka vaccinator pays three to four visits to the village every year. Every time he comes to the village, he gives previous intimation of his visit to the Police Patel, and asks him to gather together, with the aid of the village police, the people of the village with their babies, for vaccination.

*Educational Department* : The Deputy Educational Inspector, Surat District, visits the village school once or twice a year, generally at the time of annual examinations.

*Co-operative Department* : The Registrar, the head of the Co-operative Department of the Presidency, is represented by the Assistant Registrar for the Northern Division, and the latter in turn by the auditor of co-operative societies for the Surat District. This auditor visits the village once every year to examine the accounts of the local Co-operative Credit Society. The Assistant Registrar had been here about four times during the last ten years.

Besides these two government officers of this Department, there are other non-officials like the local Bank Inspector, the District Honorary Organiser, the Taluka Honorary Organiser, the Propaganda Officer and the Secretary of the Bulsar Chikli Supervising Union. As the local society works without the assistance of the local District Bank (Bulsar Branch) the services of the Bank Inspector are not required. Similarly as Mr. Manibhai, the Police Patel of the village, himself is an Honorary Organiser for Bulsar Taluka, the presence of the Propaganda Officer in the village is not required. The District Organiser pays two or three visits to the village every year. As the society is not yet a member of the Bulsar-Chikhli Union, the services of its secretary are not required. Nevertheless he often passes through Atgam when he visits societies in some of the neighbouring villages.

These, in brief, are the facts regarding the administra-

tive machinery, so far as the village under study is concerned. Two remarks of importance are necessary at this stage. (1) It is too presumptuous to offer from the study of such a small unit, any remark with regard to the efficiency of the general administrative machinery and the extent to which it actually promotes the welfare of the people. (2) So far as the immediate village officers are concerned, enough has been said about the Police and Revenue Patel, Mr. Manibhai. As regards the village accountant, we may generally observe that wherever there is an efficient Patel, the village accountant behaves as his clerk ; wherever the Patel is inefficient, as was the case in the history of this village before 1914, it is the village accountant who rules the people and, more often than not, with an iron hand.

Having thus studied the administrative machinery of the village and its relation to the people, we now pass on to a consideration of government dues and village welfare.

## GOVERNMENT DUES AND VILLAGE WELFARE

Under this heading, we shall examine the total dues paid by the people of this village to the government, and the amount that they receive back in the form of good administration, educational facilities and so on.

Of all the government dues paid by the people of a village, land revenue is usually the largest. In the case of this village, as we have ascertained, excise revenue is the largest. The latter is, however, not so evident because it is paid indirectly by the people. Besides land revenue and excise there are other dues which the village people pay to the government like tolls, stamp-duties, registration-fees, salt tax and several others. Moreover, one of the Sowcars of this village pays income tax the incidence of which is, of course, shifted to the borrower.

The dues other than land revenue, excise and income tax cannot be separately calculated because of the want of separate records for the village. We have, therefore,

attempted a calculation of the total revenue-demand which the people have to meet for the above-mentioned three heads only. The following is an attempt at calculating the total government dues met by the people in the year of enquiry.

(1) *Land Revenue* : The total land revenue paid by the village in 1926-27 was Rs. 8717-15-0, including local cess. If calculated per head, this comes to Rs. 3¼. In government revenue records under this head is also mentioned the revenue derived from the use of government waste and forest area of the village. This amounted to Rs. 68-10-9 in the year of enquiry. Thus the total land revenue paid by the people in 1926-27 amounted to Rs. 8785-15-9.

(2) *Excise Revenue.* It was a very difficult thing for us to calculate the exact amount paid by the people under this head. We have searched different registers referring to this topic kept, partly in the taluka Record room, and partly in the office of the Excise Inspector for the Bulsar Taluka. The following figures give an estimate of the total payment made by the people of the village to government by way of excise revenue.

| | EXCISE DUES | Rs. | As. | Ps. |
|---|---|---|---|---|
| *(a)* | The auction sale price of 2 toddy booths . | 710 | 0 | 0 |
| *(b)* | The auction sale price of a toddy shop . | 4375 | 0 | 0 |
| *(c)* | The duties paid to government for the use of date-trees . . . . . . . . | 1000 | 0 | 0 |
| *(d)* | The auction price of the liquor shop . . | 760 | 0 | 0 |
| *(e)* | The duty on the total quantity of liquor sold, the quantity being about 813 gallons, charged @ Rs. 2½ per gallon . | 2032 | 0 | 0 |
| *(f)* | The duties paid on date-trees purchased for domestic consumption about . . . | 552 | 0 | 0 |
| | *Total* . | 9429 | 0 | 0 |

Two things may be noted (i) that though the auction-price of booths and the shops and other duties are paid by

some individual villagers, the incidence of this tax is almost invariably shifted to the consumers, and (ii) that, as noted above, the excise revenue exceeds land revenue by Rs. 648-8-3.

Adding Rs. 56 paid by way of income tax to (1) and (2), the total comes to Rs. 18271-7-9. If all these dues are regarded as taxes, the taxation per head comes to Rs. 7-2-2.[1]

We shall now consider what was received by the people from the government during this year. The following is an estimate of what may be considered to have been received by the people from the government.

| | | Rs. | As. | Ps. |
|---|---|---|---|---|
| *(a)* | Remuneration to the Police Patel . . | 153 | 0 | 0 |
| *(b)* | Salary[2] of the village accountant. . . . | 255 | 0 | 0 |
| *(c)* | Remuneration[3] to the Village Police . . | 216 | 0 | 0 |
| *(d)* | Total expenses incurred on account of the Village School, including the salary of teachers, annual repairing charges for the school building etc. . . . . | 1432 | 0 | 0 |
| | *Total* . | 2056 | 0 | 0 |

Two remarks are necessary at this stage. (1) Though there is a government dispensary at Khergam, few people of Atgam take advantage of it, for the Kaliparaj, as already noted, do not generally use modern medicines and the Ujaliparaj either use indigenous medicines or consult doctors at Bulsar.

(2) For the sake of computation, we may take that the cost of the services rendered by superior officers who

1 cf. The incidence of taxation in British India was, in 1922 Rs. 6-7-7. 'Financial Development in Modern India,' C. N. Vakil, p. 533.

2 The village accountant is paid Rs. 30 per mensem but, since he has two other villages in his charge whose total assessment is Rs. 3500, we have divided his salary on the basis of the proportion of assessments for this village and the other two.

3 In practice the village police who are Dheds have been assigned pieces of land for which they have to pay local cess only and not government assessment. The loss thus incurred by government is regarded as a remuneration to them.

visit the village occasionally may, so far as the share of this village is concerned, be counter-balanced by the payment made by the people by way of stamp-duties, registration fees, etc., which we have omitted from our calculation of the government dues met by them.

If we take Rs. 2056 as the net cost incurred by the government for village welfare, the average annual receipts per head will come to 12 annas 10 pies. Thus the dues paid by the village comes to Rs. 7-2-2 per head, while the receipts come to 12 annas 10 pies only. It is evident that only about 11 per cent. of what is paid to the government is received back by the people.

One more interesting calculation and we have done. We have seen that the per capita income for this village is Rs. 70. Here we find that the taxation per head comes to Rs. 7-2-2. This shows that the average individual is taxed to the extent of about 10 per cent. of his annual income.

## CONCLUSIONS

The following are the main conclusions of this chapter :

(1) that the direct return to the village from the State, in view of its contribution, is small ; and

(2) that in a village where more than half of the population live on the margin, this must be considered as a drain which reduces the capacity of the people.

CHAPTER—XVII

# THE CAPITAL VALUE OF THE VILLAGE

## INTRODUCTORY REMARKS

The survey of the social and economic conditions of Atgam would be incomplete if we did not make an estimate of the capital value of the village. This concept of the capital value of the village is of great importance since the proportion which other village charges bear to it, serves as a basis for comparing the conditions of one village with those of another.

The capital value of a village can be arrived at by capitalising the value of its capital resources. We have seen in a previous chapter that the capital resources of the village consist of :

(1) land and wells, (2) houses, (3) cattle, (4) implements (5) utensils and furniture (6) cash and ornaments and (7) investments.

The latter three are purely personal possessions and are ignored in calculating the value of the village, for want of reliable data about them. We have taken into account only the first four items of capital resources while attempting the valuation of the capital value of the village. We propose to capitalise the value of each separately.

## (1) VALUE OF LAND

It is difficult to get at the exact value of land of this village as a whole, for it divides itself into two widely different varieties of soil, namely, kyari and jarayat. There is a remarkable difference between the prices of these two classes of soil and hence no common price per acre can be adopted for the village as a whole.

We have already seen that the value of land is not always determined by purely economic considerations like fertility and situation. Sometimes it is affected by social considerations like the prestige-idea about land; and sometimes an inflated price is exacted because of the monopolistic situation of the seller. It is also influenced by the relations between sowcars and their tenants. Though there are such limitations, in the absence of other reliable data, we have taken the sale values of land[1] as the basis of calculations. Taking the actual sales of land during the last six years ending with 1926, including both genuine sales between buyers and sellers, and nominal sales between sowcars and their customers, we find that

(i) 78.6 acres of kyari land were sold for Rs. 12,524-4-0 or at about Rs. 160 per acre, and

(ii) 267.2 acres of jarayat land were sold for Rs. 18,271-4-0 or at about Rs. 68 per acre.

If we exclude the vitiating circumstances of nominal sales and some extraordinary sales, we get the following results for the last few years :

| Year | Price of kyari land per acre | | | Price of jarayat land per acre | | |
|---|---|---|---|---|---|---|
| | Rs. | As. | Ps. | Rs. | As. | Ps. |
| 1921 | 135 | 10 | 0 | 42 | 2 | 0 |
| 1922 | 159 | 8 | 0 | 58 | 3 | 0 |
| 1923 | 200 | 4 | 0 | 64 | 11 | 0 |
| 1924 | 212 | 2 | 0 | 75 | 0 | 0 |
| 1925 | 158 | 5 | 0 | 32 | 8 | 0 |
| 1926 | 217 | 6 | 0 | 77 | 4 | 0 |
| Average price per acre . | 180 | 8 | 0 | 58 | 8 | 0 |

In our calculations, we have assumed Rs. 170 to be the price per acre of the former and Rs. 60 per acre of the latter.

1 *Let us note at this stage that when the sale values of land are determined, the existence of wells on the fields is invariably taken in account. We have, therefore, not valued the wells separately.*

The total cultivated kyari land in the village including both old and new[1] kyari is about 775 acres. The total cultivated jarayat land is 2368 acres. Calculating their value at the rates adopted, we get the figure Rs. 2,73,830. To this must be added the value of government waste and the forest land of the villages which only serve as grazing grounds at present. Though these two come under the category of jarayat land it will obviously be wrong to value them at Rs. 60 per acre since this land is practically unarable. A gentleman of this village recently offered Rs. 10 per acre for a piece of government waste. Assuming, therefore, Rs. 10 to be the price for both, the total land (284 acres) included under these two—government waste and forest area—will be worth Rs. 2840. The gaothan land is never sold. The land occupied by the river-beds, roads, nallas, tanks and cemetery have no sale value. Kharaba or waste land has similarly no value. Regarding the village site, it is almost impossible to arrive at any correct figure of value for it, since sales are not frequent. In a recent sale, however, the price given was Rs. 2000 per acre. This was due to the play of jealousy among different members of a caste. This is obviously an extraordinary price and cannot be taken as a guide. Assuming, after taking other things into account, Rs. 500 as the price per acre, we get Rs.950 as the total value of the village site. Thus the total capital value of the village land comes to Rs. 2,77,620.

## (2) VALUE OF HOUSES

More difficult than the valuation of land is the valuation of houses. We have already seen how they vary in this village in size, shape and the raw material with which they are made. There are mainly two types of houses, thatched and tiled. The number of the former is greater than that of the latter. There are 327 of the first type and only 76 of the second. Moreover sales of houses are

1 Separate figures for new kyari are not available.

rare. There occurred some years back only one case in which a tiled house about 1000 sq. feet in area was sold for Rs. 900.

Reckoning these 403 houses, including the Hindu temple of Ram and the mosque of the Mahommedans, at prices varying with their size and the raw material with which they are made, we get Rs. 83,950 as the total value of all houses. If this figure errs at all, it does so on the side of excess.

(3) VALUE OF LIVE STOCK

In valuing the live-stock of the village we have scanned the prices of several actual sales of cattle that occurred during the last three years and adopted the average prices. The total value of live-stock found in the village comes, according to our calculation, to Rs. 73,136 as shown below :

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | Bullocks and bulls. | 575 | @ Rs. | 75 | per animal . | Rs. | 43125 |
| 2. | He-buffaloes. | 41 | ,, | 30 | ,, | ,, | 1230 |
| 3. | Cows, in milk | 121 | ,, | 30 | ,, | ,, | 3030 |
| 4. | ,, dry | 262 | ,, | 15 | ,, | ,, | 3930 |
| 5. | She-buflaloes, in milk | 54 | ,, | 60 | ,, | ,, | 2240 |
| 6. | ,, dry | 77 | ,, | 30 | ,, | ,, | 2310 |
| 7. | Calves | 472 | ,, | 20 | ,, | ,, | 9440 |
| 8. | Buffalo-calves | 125 | ,, | 10 | ,, | ,, | 1250 |
| 9. | Goats | 494 | ,, | 8 | ,, | ,, | 3952 |
| 10. | Sheep | 98 | ,, | 8 | ,, | ,, | 784 |
| 11. | Horses | 3 | ,, | 60 | ,, | ,, | 180 |
| 12. | Poultry | 2130 | ,, | 1/2 | ,, | ,, | 1065 |
| | | | | | *Total Rs.* | | 73136 |

(4) VALUE OF IMPLEMENTS

We have studied the different kinds of implements used in this village. We have also studied their approximate costs according to the prices in the year of enquiry. Valuing all the implements found in the village when we

took the census, at their respective prices, we obtain the figure Rs. 28,139 as shown below :

| | | | |
|---|---|---|---|
| Big carts | 198 | @ Rs. 80 per unit | Rs. 15840 |
| Ploughs with yokes | 329 | ,, 11 | ,, 3619 |
| Harrows | 102 | ,, 1 | ,, 102 |
| Axes | 435 | ,, 3/4 | ,, 326 |
| Pick-axes | 360 | ,, 1 | ,, 360 |
| Hoes | 286 | ,, 1 | ,, 286 |
| Parei | 157 | ,, 1¼ | ,, 196 |
| Panjethi | 326 | ,, 1/4 | ,, 86 |
| Scythes | 398 | ,, 7/8 | ,, 349 |
| Sickles | 1551 | ,, 5/8 | ,, 944 |
| Seed-drills | 193 | ,, 7/8 | ,, 169 |
| 3 Coultred drills | 2 | ,, 10 | ,, 20 |
| Cotton Harrows | 7 | ,, 10 | ,, 70 |
| Sugarcane seed-drills | 18 | ,, 15 | ,, 270 |
| Leather bags with yokes | 55 | @ Rs. 8 & 110 @ Rs. 7 | ,, 1210 |
| Sugarcane presses | 4 | ,, 150 | ,, 600 |
| Accompaniments of the presses | 8 | ,, 100 | ,, 800 |
| Clod crushers | 12 | ,, 3½ | ,, 42 |
| | | *Total Rs.* | 25289 |

Add to the above total Rs. 2850 which is the value of 19 small carts used for riding, that were found in the village at the time of the census, the final total comes to Rs. 28,139.

## VALUE OF THE VILLAGE

Thus the total capital value of the village, if it could be sold as a running concern and excluding the purely personal possessions of the people, would be :

| | Rs. | Percentage of each to the total value of the village. |
|---|---|---|
| Land . . . | 277620 | 59·9 |
| Houses . . . | 83950 | 18·2 |
| Live-stock . . | 73136 | 15·8 |
| Implements . | 28139 | 6·1 |
| | *Rs.* 462845 | 100 |

Though this is at best an approximation, it is a useful one since 'it enables us to ascertain the proportion which certain village charges bear to capital value and so the relationship which they bear to the conditions prevalent' of our country or other countries.

The following table shows the percentages which certain village figures bear to the total capital value of land and of the village as a whole :

| | Percentage on capital value of land. | Percentage on capital value of the village as a whole. |
|---|---|---|
| 1. Government assessment on land amounting to Rs. 8300 . . . . . | 2·98 | 1·79 |
| 2. Total government dues, being about Rs. 18,271 | 6·58 | 3.94 |
| 3. Net village income from all sources being Rs. 153,802 . . . . | 55·22 | 33·22 |
| 4. Total village expenditure on all things Rs. 150,083 | 54·06 | 32·4 |
| 5. Net returns from land, being Rs. 68,089 . . | 24·52 | 14·71 |
| 6. Total debts, beings Rs. 94,758 . . . . . | 34·13 | 20·47 |

These percentages show at a glance the economic condition of the village community surveyed.

## COMPARISON WITH OTHER VILLAGE STUDIES

Figures similar to some of these items are available in three[1] other village studies made in this Presidency. It will be highly interesting to institute a comparison between these three studies and the one we have made in

1 (1) and (2) Land and Labour in a Deccan Village, Studies No. 1 and 2. and (3) "A social and Economic Survey of a Konkan Village" by V. G. Ranade.

this work. The basis of comparison is the percentages which certain vilage figures, in each study, bear to the total capital value of the village in question.

The following table brings out the points of similarity or otherwise between these four village studies :

| | Pimpla Soudagar (Deccan) | Jategaon (Deccan) | Roth Khurd (Konkan) | Atgam (Gujarat) |
|---|---|---|---|---|
| 1. Percentage of net return of crops on the capital value of the village . . . . | 10·4 | 10·6 | 9·58 | 14·71 |
| 2. Percentage of total debts on the capital value of the village . . . . . | 11·7 | 22·1 | 17·7 | 20·47 |
| 3. Percentage of government assessment on the value of the village . . . . | 1·27 | 1·46 | 0·99 | 1·79 |

Thus it is obvious that Atgam derives an income from land larger than the rest. This is quite natural as Gujarat is less affected by visitations of famine than the other two regions. At the same time it is more in debt and has to pay the highest charges by way of government assessment.

# CHAPTER—XVIII

# SUMMARY AND CONCLUSIONS

## INTRODUCTORY REMARKS

In the preceding chapters, we have made an exhaustive survey of the social and economic conditions of the village of Atgam. We may now summarise the main tendencies and conclusions and the suggestions we have offered in the different chapters.

## SUMMARY OF CONCLUSIONS

The following are the principal conclusions about the present economic life of the village of Atgam :

### I. REGARDING THE ENVIRONMENT

(1) The rainfall in the village is uncertain both in its total quantity and as regards its seasonal distribution.

(2) Climatic conditions of this place vary greatly and exercise a powerful influence for good or bad on the farmer and his occupation.

(3) The soils of the village are deficient in plant-foods and largely poor in character.

(4) The only permanent source of irrigation is wells which are uncertain as to their output of water and as to their ready response to steam-boring.

(5) The distribution of land in the village is very defective in the sense that it is owned in a highly subdivided and fragmented state.

(6) Though there are some redeeming features e. g. the tendency to cultivate a holding, larger than the average owned holding, by consolidating fragments in actual cultivation, or the sporadic attempts at consolidating fragments through purchase, and the system of joint-cultiva-

tion of sugarcane, still the problem of subdivision and fragmentation needs an urgent solution.

## II. REGARDING THE PEOPLE

(7) Though predominantly inhabited by the Kaliparaj, Atgam reflects in its life the social and economic conditions of both the Kaliparaj and the Ujaliparaj—the two big groups of people that dwell in South Gujarat.

(8) The proportion of active earners (effective popution) to the total is relatively small in this village.

(9) The village has a high birth-rate.

(10) It has also a high death-rate.

(11) Consequently, the average expectation of life is low.

(12) A substantial section of the population annually migrates to outside areas in search of employment.

(13) The tenor of life led by an average Atgam dweller is dull and monotonous ; the variations, if any, are dictated by the nature of his work.

(14) The general level of literacy, though higher than in other Indian villages so far studied, is low.

(15) Religious beliefs and practices have a strong hold on the life of the people in general.

(16) Custom rules them with an iron hand and compels every family-head to perform social ceremonies, even if incurring debt.

## III. REGARDING THE GENERAL FEATURES OF THEIR ECONOMIC LIFE

(17) Agriculture is the mainstay of this village community, which it pursues with moderate care.

(18) The returns from agriculture are, however, low and uncertain.

(19) The cattle of the village are inadequate in number and inefficient in quality.

(20) The important implements for carrying on cultivation are also inadequate.

(21) The houses of the people are, on the whole, poor in character and unattractive in appearance.

(22) Furniture in its modern sense is as yet rare in this village.

(23) The people of the village are fond of ornaments in which they invest their meagre savings, if any; they are proverbially short of capital and know little of modern forms of investments.

(24) The labour problem of the village is acute, as with a rising rate of wages, the efficiency of the labourer is falling. This is mainly due to outside influences imported by labourers who occasionally go out in search of employment.

(25) The marketing organization of farm products like paddy, gul and mango-fruits, as well as of necessities, is uneconomical.

(26) All these and other factors like the rise of prices have a marked effect upon the general economic condition of the people, which seems to be stationary, if not deteriorating, during the last decade or more.

## IV. REGARDING THE SPECIAL FACTS OF THEIR ECONOMIC CONDITION AS GAUGED BY STATISTICS

(27) The average standard of living varies with the different groups of the people, but in the case of the majority of the Kaliparaj it is decidedly low.

(28) Taking the village as a whole, the average Atgam dweller just lives from hand to mouth.

(29) Taking the village by economic groups, more than half of the families inhabiting the village live below a decent standard of living as understood by them.

(30) The causes of their poverty are the small size of the holding resulting in low production, over-population and indebtedness. The first is the primary cause while the latter two are the accentuating factors.

(31) Looking at the village population as subdivided into the Kaliparaj and the Ujaliparaj, the former are found to be worse situated than the latter. The compari-

son proves the validity of the above-mentioned causes of poverty.

(32) Over-population accentuates the effects of low production or poverty, and poverty leads to indiscriminate increase in the population. The vicious circle of over-population leading to poverty and the latter in turn to the former, is complete in the present economic condition of the village.

(33) The burden of indebtedness acts as a deterrent to the progressive activities of the people. It is serious for the village as a whole, though the local co-operative credit society has done its best to redeem as much of old debt as possible.

(34) Besides indebtedness, there is another serious problem, namely, heavy taxation which seems to be a virtual drain in a village where poverty is serious, if not abnormal.

## SUGGESTIONS

The following are the principal remedies suggested in connection with the defects mentioned above :

### I. MEASURES TO BE UNDERTAKEN BY THE PEOPLE

(1) In view of the fact that the general nature of the soil is poor because of its deficiency in plant-foods, the people should make attempts to till the soil deep and manure it adequately and properly.

(2) Good manure presupposes healthy cattle and therefore, the people should be very careful in breeding, tending, housing and feeding their cattle.

(3) They should apply themselves to agriculture personally and conscientiously, and should learn to stand courageously and successfully the uncertainties of weather.

(4) They should try to extend co-operative cultivation in case of crops other than sugarcane and attempt a consolidation of holdings on a co-operative basis.

(5) They should welcome the idea of co-operative marketing of farm products and domestic necessities.

(6) They should try to reduce the expenses on social ceremonies by developing a social opinion among themselves against lavish expenses on unproductive purposes.

(7) They should regulate their diet ; particularly the Kaliparaj should try to check their habit of excessive drink and should attempt to raise the standard of living, as well as their standard of work and income.

It is necessary to remember that all the above suggestions will remain as pious wishes unless and until the Government, whether represented by the Agricultural, Educational or Co-operative Department, assist the people by initiating such measures as are mentioned below.

## II. MEASURES TO BE UNDERTAKEN BY THE GOVERNMENT

(8) Steam-boring operations should be undertaken free of charge in the beginning.

(9) A single bund, or rather a series of them, should be constructed at suitable places in the course of the Auranga river, with a view to supply water through canals to the village and its neighbouring area, where sugarcane is raised.

(10) Pure seed and commercial fertilisers should be supplied to the people at low rates, and cultural operations with improved implements should be performed frequently, with a view to train the people in the use of these devices.

(11) Legislation should be enacted for a compulsory prevention of further subdivision and fragmentation below a fixed unit, and for encouraging a voluntary consolidation of holdings.

(12) In order to absorb the displaced population due to the application of the above measure, subsidiary occupations like rice-hulling, canning of mango-pulp, weaving and others should be initiated or encouraged.

(13) Co-operaitve societies for marketing farm produce and necessaries should be started for a group of villages or for the Bulsar Taluka, with branches and sub-branches in villages.

(14) The local co-operative credit society should be put in such a position as to be able to lend money to its members, at a rate of interest varying from about five to seven per cent.

(15) The burden of old debt should be removed by starting a Land Mortgage Bank for the Bulsar Taluka or Surat District in which the village is situated.

(16) Relief should be given to the people of the village by a reduction in taxation and by spending more on village welfare than at present.

(17) Above all, efforts should be made to spread elementary education at a greater speed, along with a quarterly course in certain subjects e. g. agriculture and rural economics.

"Better farming, better business and better living" was the ideal prescribed for a rural community by Sir Horace Plunkett, the economic regenerator of Ireland. The first and the second can be done by the co-operation of Government and the people, and the third will naturally follow. What is lacking most on the part of the people is enthusiasm, and on the part of the State, initiative and encouragement. Both these are necessary at present for the solution of the problems of rural poverty in our country.

In conclusion, let us mention that the essentials for regenerating the village community of Atgam are, in short, education, organisation, industrialisation[1] and co-operation.

1 In the restricted sense of developing rural industries.

# APPENDIX I

## FORM OF SCHEDULE USED IN CONDUCTING THE ENQUIRY

Serial No. ..................

Name of Head ..............................................................................

Caste: .............................................. House $\frac{\text{Tiled}}{\text{Thatched}}$ area ...............sq. ft.

| Members of the family | Age | Civil Condition | Literacy | | Residing outside at | Occupation | |
|---|---|---|---|---|---|---|---|
| | | | Literate in | Studying | | Principal | Subsidiary |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |

| Total annual income | Land (net) | Animals (net) | Labour (net) | | Other Sources |
|---|---|---|---|---|---|
| | | | Skilled | Unskilled | |
| | | | | | |

| Total annual expenditure | Food | Clothing | Other necessaries | Interest | Land revenue | Cash rent | Repairs and renewals | Depreciation of livestock and deadstock |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| Total indebtedness | Ordinary | Mortgage | Productive | Unproductive |
|---|---|---|---|---|
| | | | | |

| Total assets | Value of land | Value of animals | Value of implements | Value of house |
|---|---|---|---|---|
| | | | | |

*Note:* Figures of area to be given in acres.
Figures of value to be given in rupees.

## ANNUAL RETURNS FROM LAND

| Classification of land | Area owned | Net income | Area taken on lease | Net income | Area given out on lease | Net income | Total income | Add or deduct kind rent converted into cash | Total net income |
|---|---|---|---|---|---|---|---|---|---|
| Irrigated crops | | | | | | | | | |
| Non-irrigated crops | | | | | | | | | |
| Grass | | | | | | | | | |
| Trees | | | | | | | | | |
| Total | | | | | | | | | |

Land:

(*a*) Owned ..........acres in...........plots

(*b*) Cultivated..........acres in..........plots

Value of rice-land:

Value of dry-crop land:

Value of garden land:

Total value of land:

## INDEBTEDNESS

| | Govt. | C. C. S. | Sowcar | | Govt. | C. C. S. | Sowcar |
|---|---|---|---|---|---|---|---|
| *Legal aspects* . . | | | | House-building . | | | |
| Amount . . . | | | | Debt redemption | | | |
| Rate of interest . | | | | Miscellaneous . | | | |
| Ordinary mortgage . . . | | | | *Unproductive purposes* . . . | | | |
| Possessory mortgage . . . | | | | Domestic expenditure . . | | | |
| Conditional sale. | | | | Ceremonial . . | | | |
| *Productive purposes* . . . | | | | Miscellaneous . | | | |
| Seed . . . . | | | | *Compulsory payments* . . . | | | |
| Cultivation . . | | | | Land Revenue | | | |
| Animals . . . | | | | Rent . . . | | | |
| Implements . . | | | | *Borrowed, previous year* . . | | | |
| Irrigation. . . | | | | *Repaid, previous year* . . . . | | | |
| Land improvement . . . | | | | | | | |

C. C. S. = Co-operative Credit Society

**ANIMALS**

| Kind | Number | Value | Net income |
|---|---|---|---|
| Cow in milk | | | |
| Cow, dry | | | |
| She-buffalo in milk | | | |
| She-buffalo, dry | | | |
| Bullocks | | | |
| He-buffaloes | | | |
| Calves | | | |
| Buffalo-calves | | | |
| Goats | | | |
| Sheep | | | |
| Poultry | | | |
| *Total* | | | |

**IMPLEMENTS**

| Kind | Number | Value | Annual repairing and renewing charges |
|---|---|---|---|
| Cart | | | |
| Plough | | | |
| Axe and pick-axe | | | |
| Hoe and Panjethi | | | |
| Scythe and Sickle | | | |
| Orni | | | |
| Kosh (water-bag) | | | |
| Ediu | | | |
| Clod-crusher | | | |
| Nangar (big plough) | | | |
| Harrow | | | |
| Pharsi | | | |
| *Total* | | | |

Employment: *(a)* on land.................... months

*(b)* otherwise.....................months

**ECONOMIC HISTORY**

*(a)* Land owned:

*(b)* Land purchased:

*(c)* Land mortgaged:

*(d)* Land sold:

*(e)* Cause of sale or mortgage:

*(f)* Means of purchase:

**GENERAL REMARKS**

# APPENDIX II

## THE METHOD OF CONSTRUCTING INDICES OF ANNAWARI

The following were the stages in constructing the indices:

*a)* We collected figures of total yield in tons, and of acreage under,

(i) paddy
(ii) kodra
(iii) 'other pulses' (including 'wal') for the *Surat District* from the Season and Crop Reports.

Notes: (i) These three are the principal cereal and pulse crops of the village.

(ii) For years prior to 1916-17, statistics of total yield and acreage under these three crops are not separately given for Surat District. For the years 1911-12 to 1916-17, we have therefore taken the figures of yield and acreage of these crops given for the whole of British Gujarat in arriving at the average.

*b)* We summed up the total yield in tons for each of these three crops for each year. We also summed up the acreage under each for each year.

*c)* For each of the last 15 years, we converted the total yield in tons for the three crops combined into so many maunds (taking 1 ton=56 maunds) and divided the total yield in maunds by the total acreage under the three combined. The resultant was the average yield of the three crops combined in maunds per acre for each year.

*d)* Taking then the highest one of these figures of average yield as representing '12 anna' crop (and this is the normal crop adopted as the basis of calculation even in the Season and Crop Reports) we converted the other figures of average yield for the rest of the years into anna-valuation in terms of '12 anna' crop.

The final results are adopted as the indices for gauging the nature of different years. The following table will make this method clear: We have given, by way of illustration, figures for three years only.

| Year | Yield in tons / Acreage | | | Total yield in-tons for all three / Total acreage under them | Total yield in maunds for three / Total acreage under them | Average yield per acre in maunds for the three | Conversion in terms of '12 anna' crop |
|---|---|---|---|---|---|---|---|
| | Paddy | Kodra | 'Other pulses' | | | | |
| 1919-20 | 64612 / 96547 | 8328 / 18289 | 2787 / 14583 | 75727 / 129439 | 4240682 / 129439 | 32·6 | 12 |
| 1920-21 | 35477 / 94472 | 6577 / 15793 | 2012 / 12980 | 44066 / 123245 | 2467696 / 123245 | 20 | 7 |
| 1924-25 | 54796 / 95899 | 5181 / 11106 | 3451 / 15277 | 63328 / 122332 | 3540334 / 122332 | 28·9 | 10 |

The result of the calculation may be thus summarised:—

| Year | Index of Annawari | Nature of the Season |
|---|---|---|
| 1912-13 | 8 | Bad |
| 1913-14 | 11 | Good |
| 1914-15 | 10 | Fair |
| 1915-16 | 5 | Very bad |
| 1916-17 | 12 | Very good |
| 1917-18 | 10 | Fair |
| 1918-19 | 5 | Very bad |
| 1919-20 | 12 | Very good |
| 1920-21 | 7 | Bad |
| 1921-22 | 11 | Good |
| 1922-23 | 12 | Very good |
| 1923-24 | 10 | Fair |
| 1924-25 | 10 | Fair |
| 1925-26 | 6 | Bad |
| 1926-27 | 10 | Fair |

# APPENDIX III

## SHOWING THE ESTIMATE OF THE COST OF SINKING A WELL

The actual cost of sinking a well in Atgam in 1925-26 was as follows:---

The internal diameter of the well measured $8\frac{1}{2}$ feet.

The outer diameter of the well measured 11 feet.

Height of the masonry work built 24 feet.

The circular piece of wood 12"×12", the Chaki, on which the masonry wall was built.

| | | | | |
|---|---|---|---|---|
| *(a)* A tamarind tree cut from the field of the owner of the well, valued at Rs. 15. Less the worth of fuel obtained Rs. 3. | | | | |
| Net cost of the wood . . . . . | Rs. | 12 | 0 | 0 |
| *(b)* Payment on account of felling the tree and preparing the chaki . . . . . . | ,, | 10 | 0 | 0 |

### DIGGING THE EARTH

| | | | | |
|---|---|---|---|---|
| A contract made with the Dublas at piece rates to dig the earth to the level of water under the ground . . . . . . . . . . . . . . | ,, | 35 | 0 | 0 |
| Cost of bricks 10000 @ Rs. 7-2-0 per 1000 . | ,, | 71 | 4 | 0 |
| Cost of carriage of bricks @ Rs. 1-8-0 per 1000 | ,, | 15 | 0 | 0 |
| 14 Khandies of mortar @ Rs. 4-4-0 per khandi of 20 maunds . . . . . . . . . . . . . | ,, | 59 | 8 | 0 |
| 45 cartloads of sand were obtained from the Auranga river on the payment of the cost of a permit from Government . . . . . . . . | ,, | 1 | 4 | 0 |
| Cost of carting mortar @ 0-12-0 per cart . . | ,, | 10 | 8 | 0 |
| Cost of carting sand @ 1-0-0 per cart . . . | ,, | 45 | 0 | 0 |

Employment of Dublas as labourers during the construction of the masonry work at 4 annas per diem + cost of toddy given at intervals of every three days + cost of loaves given once every day:

| | | | | |
|---|---|---|---|---|
| (i) In cash Rs. 14- 0-0 | | | | |
| (ii) In kind ,, 13-10 0 | | | | |
| *Total* . . . . | Rs. | 27 | 10 | 0 |
| 2 masons for 7 days @ 1-8-0 per diem + cost of liquor + cost of feeding them as they belonged to some other village: | | | | |
| (i) In cash Rs. 21-0-0 | | | | |
| (ii) In kind ,, 8-6-0 | | | | |
| *Total* . . . . | ,, | 29 | 6 | 0 |
| Estimated cost of the construction of the top, 3 feet high and other miscellaneous charges | ,, | 75 | 0 | 0 |
| *Total* | Rs. | 391 | 8 | 0 |

The farmer in this case was lucky in finding water at a comparatively higher level. Usually water is found at a much greater depth, say 40 to 50 feet below the surface of the ground. In that case, the cost of digging, masonry work, etc., comes to almost double the cost we have arrived at above. Thus the cost of sinking a well in Atgam varies from about Rs. 400 to Rs. 800.

# APPENDIX IV

Giving the annual time-table of work of two brothers, possessing and cultivating 15 acres of land, in Atgam:

1st JETH to 30th JETH
June—July.

| | | | |
|---|---|---|---|
| 1. | Preparing fields for paddy, Kodra, Nagli, Tur and Sann— 20 days; 8 hours a day | = | 160 hours. |
| 2. | Carting and spreading manure in heaps in the fields— 4 days; 6 hours a day | = | 24 ,, |
| 3. | Top-dressing sugarcane—1 day; 6 hours | = | 6 ,, |
| 4. | Sowing paddy, Kodra, Nagli, Tur and Sann 5 days; 8 hours a day | = | 40 ,, |

1st ASADH to 30th ASADH
July—August.

| | | | |
|---|---|---|---|
| 1. | Fencing— 3 days; 7 hours a day | = | 21 ,, |
| 2. | Transplantation of paddy and nagli— 15 days; 8 hours a day | = | 120 ,, |

1st SHRAVAN to 30th SHRAVAN
August—September.

| | | | |
|---|---|---|---|
| 1. | Weeding paddy-fields— 6 days; 7 hours a day | | 42 ,, |
| 2. | Weeding Kodra-fields— 20 days; 7 hours a day | = | 140 ,, |
| 3. | Weeding Nagli-fields— 4 days; 7 hours a day | = | 28 ,, |

1st to 30th BHADARVO
September—October.

| | | | |
|---|---|---|---|
| 1. | Fencing— 3 days; 7 hours a day | = | 21 ,, |
| 2. | Taking out Sann-fibre— 5 days; 5 hours a day | = | 25 ,, |
| | *Carried over* | | 627 *hours.* |

*Brought forward* 627 *hours.*

1st to 30th ASO
October—November.

1. Reaping, collecting, bundling and bringing home paddy plants bearing sheaves and nagli sheaves—
   15 days; 8 hours a day = 120 ,,
2. Ploughing and sowing wal, Sanbi and castorseed—
   5 days; 8 hours a day = 40 ,,

1st to 30th KÁRTAK
November—December.

1. Reaping, collecting and bringing home Kodra—
   8 days; 8 hours a day = 64 ,,
2. Setting up the sugarcane-press—
   2 days; 8 hours a day = 16 ,,
3. Pressing out juice and manufacturing gul therefrom—
   4 days; 20 hours a day = 80 ,,
4. Cutting grass—
   5 days; 7 hours a day = 35 ,,
5. Planting sugarcane—
   1 day; 9 hours a day = 9 ,,
6. First watering to sugarcane—
   4 days; 8 hours a day = 32 ,,

1st to 30th MAGSAR
December—January

1. Separating and winnowing paddy, nagli, kodra and marvel.
   10 days; 9 hours a day = 90 ,,

1st to 30th POSH
January—February.

1. Weeding wal and castorseed fruits—
   3 days; 6 hours a day = 18 ,,
2. Collecting fuel for the sugarcane-furnace next year—
   3 days; 7 hours a day = 21 ,,

*Carried over* 1152 *hours.*

| | | |
|---|---|---|
| | *Brought forward* | 1152 *hours.* |
| **1st to 30th MAH<br>February—March.** | | |
| 1. Reaping tur—<br>6 days; 4 hours a day | = | 24 ,, |
| 2. Reaping wal—<br>5 days; 4 hours a day | = | 20 ,, |
| 3. Second watering to sugarcane—<br>3 days; 8 hours a day | = | 24 ,, |
| 4. Digging the sugarcane field with a pick-axe—<br>4 days; 7 hours a day | = | 28 ,, |
| 5. Separating and winnowing tur and wal—<br>9 days; 8 hours a day | = | 72 ,, |
| **1st to 30th FAGAN<br>March—April.** | | |
| 1. Reaping and separating castorseed—<br>7 days; 6 hours a day | = | 42 ,, |
| 2. Third watering to sugarcane—<br>3 days; 8 hours a day | = | 24 ,, |
| 3. Hand-digging the sugarcane-field—<br>4 days; 7 hours a day | = | 28 ,, |
| 4. Bringing grass bundles home—<br>2 days; 7 hours a day | = | 14 ,, |
| **1st to 30th CHAITRA<br>April—May.** | | |
| 1. Four waterings to sugarcane—<br>12 days; 8 hours a day | = | 96 ,, |
| 2. Twice hand-digging the sugarcane field—<br>6 days; 7 hours a day | = | 42 ,, |
| 3. Cutting and packing mango fruits—<br>2 days; 6 hours a day | = | 12 ,, |
| **1st to 30th VAISHAKH<br>May—June.** | | |
| 1. Six waterings to sugarcane—<br>12 days; 8 hours a day | = | 96 ,, |
| | *Grand total* | 1634 hours. |

Taking a normal day of 7 hours, the total number of days for which these two brothers work comes to 233·4 days per annum. In other words, they work for about 8 months during the year.

# APPENDIX V. A

## MINIMUM AND MAXIMUM EXPENSES ON MARRIAGE FOR DIFFERENT CASTES, IN RUPEES

| Caste or Class | Of a boy | Of a girl | Remarriage of a man | Remarriage of a woman |
|---|---|---|---|---|
| Dhodias | 150/250 | 50/100 | 75/100 | 40/50 |
| Dublas | 150/200 | 25/50 | 60/100 | 20/30 |
| Naikas | 150/250 | 40/50 | 50/75 | 15/25 |
| Kuknas | 100/150 | 30/50 | 75/100 | 10/25 |
| Kolis | 250/400 | 125/200 | 300/500 | 50/75 |
| (Anavil) Brahmins | defrayed from the dowry | 3000/10000 | | |
| Rajputs | 800/1000 | 200/300 | 600/700 | 100/150 |
| Dharwads | 250/300 | 100/150 | 300/400 | 50/75 |
| Machhis | 400/500 | 150/250 | 250/300 | 30/50 |
| Dheds | 200/400 | 80/150 | 100/150 | 20/30 |
| Suthars | 500/700 | 300/700 | 300/500 | 75/100 |
| Valands | 250/400 | 100/150 | 300/500 | 40/60 |
| Kumbhars | 650/800 | 150/250 | 1000/1100 | 75/125 |
| Khalpas | 200/300 | 75/100 | 300/400 | 40/50 |
| Mochis | 200/300 | 100/150 | 400/600 | 60/100 |
| Bhangis | 50/75 | 30/50 | 30/50 | 20/30 |
| (Jain) Banias | 2500/4000 | 700/1500 | | |
| Parsis | 1500/2500 | 2000/3000 | 1000/1500 | 700/1000 |
| Mahomme-dans | 400/700 | 150/250 | 60/125 | 40/60 |

# APPENDIX V. B

## MINIMUM AND MAXIMUM EXPENSES ON DEATH CEREMONIES FOR DIFFERENT CASTES, IN RUPEES

| Caste or Class | Boy | Girl | Man | Woman |
|---|---|---|---|---|
| Dhodias | 10/20 | 10/20 | 50/75 | 50/75 |
| Dublas | 5/10 | 5/10 | 20/25 | 10/15 |
| Naikas | 5/10 | 5/10 | 20/25 | 10/15 |
| Kuknas | 5/10 | 5/10 | 30/50 | 15/25 |
| Kolis | 10/15 | 10/15 | 50/100 | 50/100 |
| (Anavil) Brahmins | 10/25 | 8/15 | 100/500 | 400/800 |
| Rajputs | 30/40 | 30/40 | 200/250 | 200/250 |
| Dharwads | 25/40 | 25/40 | 70/100 | 70/100 |
| Machhis | 25/40 | 20/25 | 100/150 | 100/150 |
| Dheds | 10/20 | 10/20 | 60/100 | 50/75 |
| Suthars | 20/30 | 20/30 | 300/500 | 250/400 |
| Valands | 10/30 | 5/15 | 80/150 | 50/100 |
| Kumbhars | 50/75 | 50/75 | 200/300 | 200/300 |
| Khalpas | 15/25 | 15/25 | 100/150 | 100/150 |
| Mochis | 8/10 | 8/10 | 100/200 | 100/200 |
| Bhangis | 5/10 | 5/10 | 30/50 | 30/50 |
| (Jain) Banias | 50/100 | 50/100 | 100/250 | 100/250 |
| Parsis | 200/300 | 200/300 | 1200/1500 | 1200/1500 |
| Mahommedans | 30/50 | 30/50 | 125/200 | 75/150 |

# APPENDIX VI

## GIVING DETAILED INFORMATION ABOUT THE FRAGMENTATION OF HOLDINGS IN THE VILLAGE

| Holdings of | | No. of holdings with this No. of plots. | Average area of holding. Acres. | Largest holding. Acres. | Largest plot. Acres. | Smallest holding. Acres. | Smallest plot. Acres. |
|---|---|---|---|---|---|---|---|
| One | plot. | 135 | 1·07 | 11·15 | 11·15 | ·025 | ·02 |
| Two | plots. | 53 | 2·07 | 16·1 | 16 | ·2 | ·02 |
| Three | ,, | 44 | 3·27 | 16·7 | 13·17 | ·27 | ·02 |
| Four | ,, | 23 | 4·47 | 15·22 | 7·12 | 1·07 | ·02 |
| Five | ,, | 31 | 7·3 | 32·27 | 15·32 | ·57 | ·02 |
| Six | ,, | 17 | 6·12 | 27·2 | 13·97 | ·85 | ·02 |
| Seven | ,, | 9 | 5·12 | 12·12 | 7·37 | 1·9 | ·05 |
| Eight | ,, | 12 | 9·9 | 53·87 | 19·72 | 1·72 | ·02 |
| Nine | ,, | 13 | 6·77 | 18·7 | 9·7 | 0·97 | ·02 |
| Ten | ,, | 11 | 12·25 | 20·57 | 10·52 | 1·05 | ·02 |
| Eleven | ,, | 9 | 1·35 | 33·35 | 11·87 | 3 | ·05 |
| Twelve | ,, | 15 | 13·07 | 29·35 | 9·72 | 3· 3 | ·02 |
| Thirteen | ,, | 6 | 16·52 | 43·37 | 8·7 | 6·77 | ·05 |
| Fourteen | ,, | 5 | 7·2 | 12·57 | 4·25 | 3·07 | ·02 |
| Fifteen | ,, | 7 | 28·27 | 23·82 | 6·4 | 3·25 | ·05 |
| Sixteen | ,, | 9 | 13· 7 | 45·97 | 11·6 | 2·32 | ·02 |
| Seventeen | ,, | 2 | 20·12 | 31·75 | 11·22 | 8·5 | ·02 |
| Eighteen | ,, | 5 | 15·27 | 18·97 | 6·57 | 12 | ·02 |
| Nineteen | ,, | 3 | 7·5 | 8·52 | 1·27 | 6·65 | ·02 |
| Twenty | ,, | 3 | 43·07 | 48·25 | 11·7 | 37·87 | ·05 |
| Twenty-one | ,, | 4 | 39·4 | 67·15 | 14·02 | 13·1 | ·05 |
| Twenty-two | ,, | 2 | 32·65 | 55·87 | 13·17 | 9·45 | ·75 |
| Twenty-three | ,, | 1 | 10·3 | 10·3 | 1·27 | 10·3 | ·05 |
| Twenty-six | ,, | 1 | 15·77 | 15·77 | 3·6 | 15·77 | ·1 |
| Twenty-seven | ,, | 1 | 9·9 | 9·9 | ·85 | 9·9 | ·15 |
| Thirty | ,, | 1 | 28·23 | 28·23 | 7·37 | 28·23 | ·02 |
| Thirty-one | ,, | 1 | 27·52 | 27·52 | 5·07 | 27·52 | ·02 |
| Thirty-three | ,, | 1 | 57·12 | 57·12 | 10·47 | 57·5 | ·07 |
| Thirty-five | ,, | 1 | 68·85 | 68·85 | 9·22 | 68.85 | ·02 |
| Thirty-seven | ,, | 1 | 104·45 | 104·45 | 12·22 | 104·45 | ·05 |
| Thirty-nine | ,, | 1 | 20·82 | 20·82 | 4·02 | 20·82 | ·02 |
| Forty | ,, | 1 | 63·2 | 63·2 | 11·72 | 63·2 | ·05 |
| Forty-two | ,, | 1 | 116·62 | 116;62 | 21·25 | 116·62 | ·1 |
| Fifty-seven | ,, | 1 | 62·57 | 62·57 | 10·22 | 62·57 | ·05 |
| Sixty-nine | ,, | 1 | 104·55 | 104·55 | 7·75 | 104·55 | ·02 |

*Total Plots* 2642. 431 (Holdings).

# APPENDIX VII

Giving a list of cattle-diseases and the traditional remedies employed by villagers.

| Name of disease. | | | Remedy employed. |
| --- | --- | --- | --- |
| | English. | Local. | |
| 1. | Hæmorrhagic septicoemia. | Galsuna. | Application of the juice of आगपान or डोरमोरा—kinds of trees; or getting it brushed by a so-called medical man. |
| 2. | Mouth-disease. | Mova. | Giving boiled Tur or rubbing the tongue with the bark of a Babul tree or with the pulverised leaves of चणोठी, a kind of vegetation. |
| 3. | Foot-disease. | Kharva. | Pressing the feet of the animal in hot dust or tying a bandage of crushed tobacco leaves and leaves of pine-apple plants round the feet. |
| 4. | Tick-fever. (bloodshed in urine.) | | Giving toddy or alum-water to drink. |
| 5. | Verruca. | Mata. | Taking oath of the goddess supposed to control the disease and giving boiled Tur or chaff of Tur or ghee. |
| 6. | Memities. | | Application of the juice of leaves of mango trees or rubbing that portion with a piece of iron or silver. |
| 7. | Cough. | Khamsi. | Giving paddy or leaves of bamboo-trees to eat or rubbing salt on the tongue. |
| 8. | Choking. | | Thrusting a strip of a palm leaf into the mouth. |
| 9. | Timpanitis. | Afro. | Rubbing salt on the back of the animal or giving salt-water or water taken out of cucumber, or juice of white onions or eggs. |
| 10. | Impaction of the stomach. | Fugvu. | Giving liquor or eggs. |
| 11. | Diarrhoea. | Atisar. | Giving ash mixed with sour milk or plantains. |
| 12. | Skin-disease. | Khujali. | Application of castor-oil or sesamum-oil. |

# APPENDIX IX

Showing how the usual daily diet of the average Kaliparaj family, regarded by them as a decent ration, falls short of the standard diet of efficiency.

We have assumed, in accordance with the notion prevalent among the Kaliparaj, 5 seers of paddy (yielding about $3\frac{3}{4}$ seers of rice) $3\frac{1}{3}$ seers of nagli and $1\frac{1}{3}$ seers of wal as the average daily requirements of a normal Kaliparaj family consisting of 1 man, 2 women and 2 children. We shall try here to find out whether this daily diet supplies the family with as much nutrition as is necessary for maintaining physical efficiency.

In accordance with our assumption, namely, 1 man $=\frac{4}{5}$ woman $=\frac{2}{3}$ child, the normal family will be=59/15 adults (male). Converting the daily ration mentioned above into ounces per adult, the following will be the results:

15·2 oz. of paddy,
13·6 ,, ,, nagli, and
5·4 ,, ,, wal.

The following figures, extracted from the Bulletin of the Agricultural Department No. 124 of 1925 by Prof. D. L. Sahasrabudhe, show the nutritive value of rice, nagli and wal in terms of percentages:

| | Rice (Ramsal) | Nagli (Poona) | Wal (Poona) |
|---|---|---|---|
| Moisture . . . . . . | 10·9 | 14·36 | 9·08 |
| Ether extract . . . | 0·65 | 1·34 | 1·11 |
| Proteins . . . . . . | 6·13 | 6·44 | 20·75 |
| Starch . . . . . . | 31·97 | 73·34 | 58·38 |
| Woody fibre . . . . | nil | 1·83 | 6·78 |
| Ash . . . . . . . | 0·35 | 2·69 | 3·90 |

Though the quality of the three varieties of corn used by the Kaliparaj dweller of Atgam is inferior to that of those mentioned above, we shall assume for the purpose of discussion the above-mentioned analysis to be true in the case under consideration.

Proteins, ether extract or fat and starch are the three important elements which supply nutrition to the human body. Of these the first is of greatest importance.

The average ration of an average Kaliparaj adult mentioned above will thus consist of the following quantities of grain:

| | Oz. | Proteins. Oz. | Fat. Oz. | Starch. Oz. |
|---|---|---|---|---|
| Rice | 15·2 | 0·93 | 0·09 | 12·45 |
| Nagli | 13·6 | 0·87 | 0·18 | 9·97 |
| Wal | 5·4 | 1·12 | 0·05 | 3·16 |
| | 34·2 | 2·92 | ·33 | 25·58 |

Church says that the average Indian who does hard work *(e. g.* field-work) must be supplied every day with 3·635 oz. of proteins, 2·506 oz. of fat and 16·95 oz. of starch.

Thus it is obvious that the average daily ration of the average Kaliparaj adult of Atgam is deficient in proteins, the most important human food for replenishing the worn-out tissues. In other words, he is a victim of chronic malnutrition.

# APPENDIX X

## RURAL INVESTIGATIONS IN GUJARAT

The greater part of this work was done in 1927, and the claim made in the Preface may be maintained in spite of certain recent activities in the same direction mentioned below.

(1) A general survey of the Pardi Taluka, Surat District was done by a Committee appointed by the Gujarat Branch of the Bombay Provincial Co-operative Institute in 1923; this was published in 1925.

(2) While this book is in the press, "An Economic Survey of Aladar", a village in the Broach District, made by Mr. G. C. Mukhtyar himself during 1928-29, under the auspices of the Gujarat Branch of the Bombay Provincial Co-operative Institute, has been published.

(3) A survey of the economic conditions of the villages of Vedchhi and Kumbhia (Bardoli Taluka Surat District), made by Mr. Narhari Dwarkadas Parikh and his co-workers in May 1929 is being published in instalments in the monthly supplements of "Navjivan" (Gujarati).

(4) The Gujarat Vidyapith (the National University at Ahmedabad, founded by Mahatma Gandhi) has recently appointed a Committee for the Economic survey of the Matar Taluka, Kheda District. The survey is to be done by students under the direction of Professor Coomarappa and Mr. Narhari Parikh.

(5) Similar work relating to Gujarat is in progress in the Bombay University School of Economics and Sociology.

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